2007 LCD Models – North America
TLA-04641C, 4641-TLXB

Polaroid

SERVICE MANUAL



Bezel covers vary by model
20070605

Important Service and Safety Information

WARNING CAUTION

Prior to using this service manual, please ensure that you have carefully followed all the procedures outlined in the user's manual for this product.

(1) Read all of these instructions.

(2) Save these instructions.

(3) Follow all warnings and instructions marked on the product.

(4) Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners; use a damp cloth for cleaning.

(5) Do not use this product near water.

(6) Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product.

(7) Slots and openings in the cabinet and the back or bottom are provided for ventilation, to ensure reliable operation of the product and to protect it from overheating, those openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation unless proper ventilation is provided.

(8) This product should be operated from the type of power source indicated on the marketing label. If you are not sure of the type of power available, consult your dealer or local power company.

(9) This product is equipped with a 3-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature, if you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not ignore the purpose of the grounding-type plug.

(10) Do not allow anything to rest on the power cord. Do not locate this product where people will walk on the cord.

(11) If an extension cord is used with this product, make sure that the total of the ampere ratings on the product plugged into the extension cord does not exceed 15 ampere.

(12) Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

(13) Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to service personnel.

(14) Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- **a.** When the power cord or plug is damaged or frayed.
- **b.** If liquid has been spilled into the product.
- **c.** If the product has been exposed to rain or water.
- **d.** If the product does not operate normally, when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- **e.** If the product has been dropped or the cabinet has been damaged.
- **f.** If the product exhibits a distinct change in performance, indicating a need for service.

Important Service and Safety Information

Service work should be performed only by qualified service technicians familiar with all safety checks and these service guidelines:

ELECTRIC SHOCK HAZARD

WARNING

Always disconnect AC power before servicing!
Never modify any circuit!
Never insert any objects into the holes in the TV case!

ELECTROSTATIC DISCHARGE (ESD)

Components inside an LCD or plasma TV are sensitive to static electricity. Before servicing the TV, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove replacement components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold components by their edges. Avoid touching the edge connectors. Never slide components over any surface.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your workbench or other grounded connection.
- Touch a bare metal surface on your workbench or other grounded object before touching any components.

NOTICE ABOUT REPLACEMENT PARTS

CAUTION

Many electrical and mechanical parts within LCD or plasma televisions are chosen for their specific safety characteristics within the overall system. Replacing individual parts with components rated for higher voltage or wattage can be dangerous!

Replacement parts must always be identical to those originally used in the television. Unauthorized substitute parts may result in fire, electric shock, or other hazards.

Important Service and Safety Information

PRECAUTIONS FOR USING LEAD-FREE SOLDER

Components within this television use lead-free solder (Sn-Ag-Cu). Whenever soldering, look at the markings on boards and components within the television to determine the correct solder type according to the table below.

5 LEAD-FREE (Pb-Free) CATEGORIES

The following categories are meant to describe the Pb-free 2nd level interconnect terminal finish, component material, and/or the solder paste/solder used in board assembly:

e1 - SnAgCu (shall not be included in category e2)
e2 - Sn alloys with no Bi or Zn excluding SnAgCu
e3 - Sn
e4 - Precious metal (e.g., Ag, Au, NiPd, NiPdAu) (no Sn)
e5 - SnZn, SnZnx (no Bi)
e6 - contains Bi
e7 - low temperature solder (≤ 150 °C) containing Indium (no Bi)
e0, e8, e9 symbols are unassigned at this time.

When repairing components soldered with lead-free solder, ONLY use lead-free solder that matches the symbol on the component. Using conventional lead solder may lead to damage or a short, which could result in fire, electric shock, or other hazards.

Because the melting point of lead-free solder is higher than conventional lead solder, observe the following guidelines when soldering with lead-free solder:

(1) Always use a dedicated soldering bit for different types of solder. If a different type of solder comes in contact with a lead-free solder bit, subsequent solder joints will no longer be lead free. Always clean the soldering bit after every use.

(2) Keep the soldering bit in contact with the just long enough to confirm a good solder joint. Leaving the bit in contact with parts for an extended period may damage the components.

(3) Because lead-free solder contains a higher concentration of tin, the tip of the soldering bit may be easily corroded or damaged. Do not leave the bit powered on for extended periods. When the tip of the soldering bit is blackened during use, clean the bit with steel wool or fine sandpaper.

Table of Contents

Model Specifications are located in User Manual. Go to polaroid.com to obtain User Manual.

1. Specifications

HDMI	
Format	DVI 1.0
Level/Impedance	0.5~3.0Vp-p/100 Ohm (Differential),50 Ohm (Single ending)
TMDS Mode	Single Link
Frequency	Fh = 31~60 kHz Fv = 56~76 Hz
Maximum Pixel Clock	135 MHz
DDC 1/2B	Compliant with Revision 1.0
Connector	HDMI x 1
Analog HD15 PC Signal (RGB)	
Format	R, G, B Analog
Level/Impedance	0.7Vp-p / 75Ω
DDC 1/2B	Compliant with Revision 1.0
Sync	H/V separate 3V TTL level / 1kΩ
Frequency	Fh = 31~60 kHz Fv = 56~76 Hz
Maximum Pixel Clock	135 Mhz
Connector	Mini D-Sub 15 pin (female) x 1
Video (Composite) CVBS Signal	
Format	NTSC, 4.43NTSC, PAL_M, PAL(B,G,H,D,N), SECAM
Level / Impedance	1.0Vp-p / 75Ω
S-Video (Y/C) Signal	
Format	Y, C
Level / Impedance	Y: 1.0Vp-p / 75Ω C: ± 286 mV/ 75Ω
Analog HD15 Video Signal (YPbPr/YCbCr)	
Format	Y, Pb, Pr or Y, Cb, Cr
Level / Impedance	Y: 1.0Vp-p / 75Ω Pb/Cb, Pr/Cr: 0.7 ± 0.035Vp-p / 75Ω
Power Source	AC100 – 240 V, 60/50 Hz
Sound Output	10W X2, 8 Ohm.

RGB PC Timing				
STANDARD	**RESOLUTION**	**V FREQ Hz**	**H FREQ kHz**	**CLK MHz**
VGA	640x480	60	31.47	25.16
VGA	640x480	75	37.5	31.5
SVGA	800x600	60	37.88	40
SVGA	800x600	75	46.9	49.5
XGA	1024x768	60	48.36	65.0
XGA	1024x768	75	60.02	78.75
SXGA	1280x1024	60	64	108
SXGA	1280x1024	75	80	135
MAC	640x480	67	35	30.24
Non-VESA	720x400	70	31.5	28
Video & S-Video AV Timing				
STANDARD	**RESOLUTION**	**V FREQ Hz**	**H FREQ kHz**	**CLK MHz**
NTSC	525	60	15.734	12.65
PAL(B,G,H,D,I)	625	50	15.625	14.50
SECAM	625	50	15.625	14.50
4.43NTSC	525	60	15.734	12.65
PAL-M	525	60	15.734	12.65
PAL-N	625	50	15.625	14.50
HDTV/Component AV Timing				
SDTV 525i	720x525	60	15.735	27
SDTV 625i	720x625	50	15.625	27
SDTV 480p	720x480	60	31.5	27
HDTV 720p	1280x720	60	50.0	74.2
HDTV 1080i	1920x1080	60	33.7	74.2
HDMI Timing				
STANDARD	**RESOLUTION**	**V FREQ Hz**	**H FREQ kHz**	**CLK MHz**
ATSC, 480i	720x480	60	15.7	27
ATSC, 480p	720x480	60	31.5	27
ATSC, 1080i	1920x1080	60	33.7	74.2
ATSC, 720p	1280x720	60	45.0	74.2
ATSC, 576i	720x576	50	15.6	27

2. Operation

Front/Right Side View and Controls

LED
The LED light indicates when the LCD TV is activated.



IR
Infrared Receiver



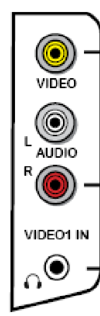
VOLUME ▲▼
Adjusts the volume up and down.
Selects the main-menu item and change values for items when in the OSD mode.

CHANNEL ▲▼
Scans up and down through channels.
Selects sub-menu item when in the OSD mode.

MENU
Press once to display the OSD (on screen display), press again to turn the OSD off.

INPUT
Chooses from different input signal sources.

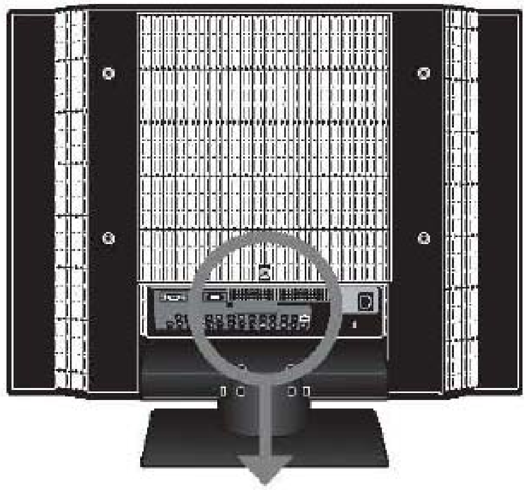
⏻
Turns the LCD TV on and into standby mode.



VIDEO1 IN
Connects to the composite Video and Audio output jacks on external video equipment.

EARPHONE
Connects to the external headhone for private listening.

Rear View and Jacks

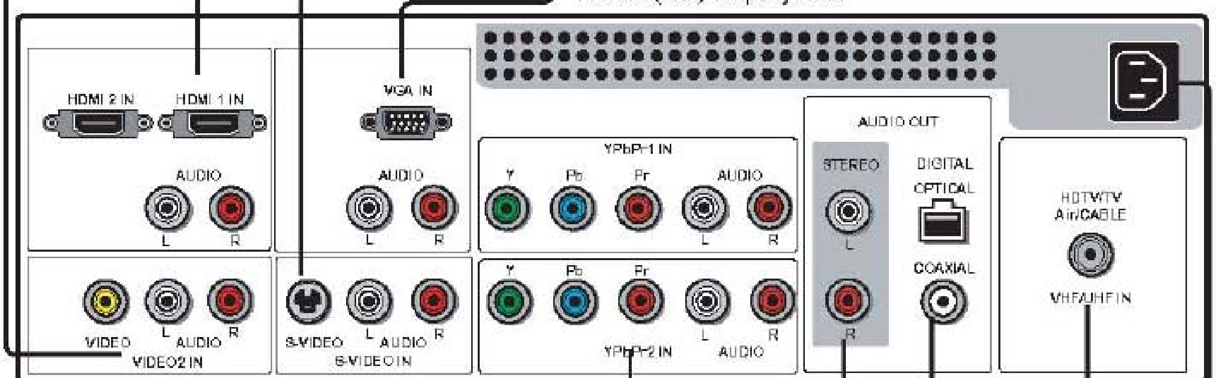


VIDEO2 IN
Connects to the composite VIDEO and AUDIO(L/R) output jacks on external video equipment.

HDMI1 IN/HDMI2 IN
Connects the all digital AV equipment with HDMI connector.HDMI supports enhanced, high-definition video and two-channel digital audio. The AUDIO(L/R) of HDMI IN is for DVI connection.

S-VIDEO IN
Connects to the S-VIDEO and AUDIO(L/R) output jacks on external video equipment.

VGA IN
Connects the PC, or other AV equipment with VGA and AUDIO(L/R) output jacks.



YPbPr1 IN/YPbPr2 IN
Connects to the DVD player, Digital Set-Top-Box, or other AV equipment with component(YPbPr) video and audio output jacks.

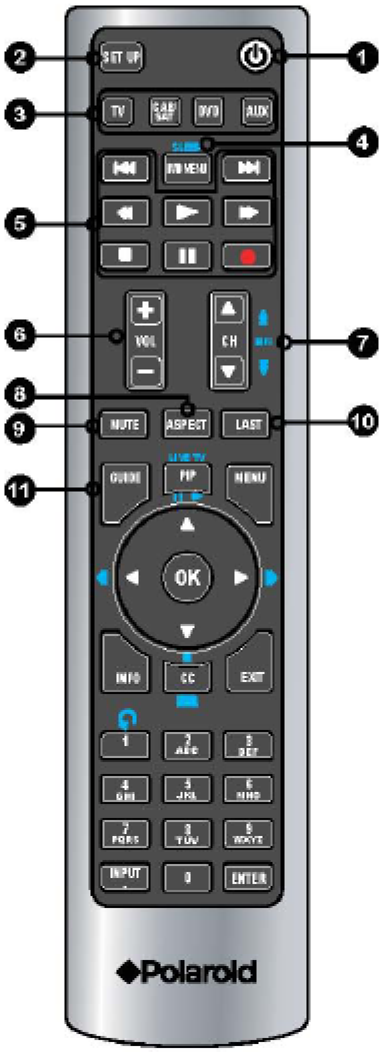
AUDIO OUT-STEREO
Connects to the AUDIO(L/R) input jacks on AV equipment.

AUDIO OUT-DIGITAL-OPTICAL/COAXIAL
Connects to the DIGITAL AUDIO jack on the digital/standard 5.1 audio system.

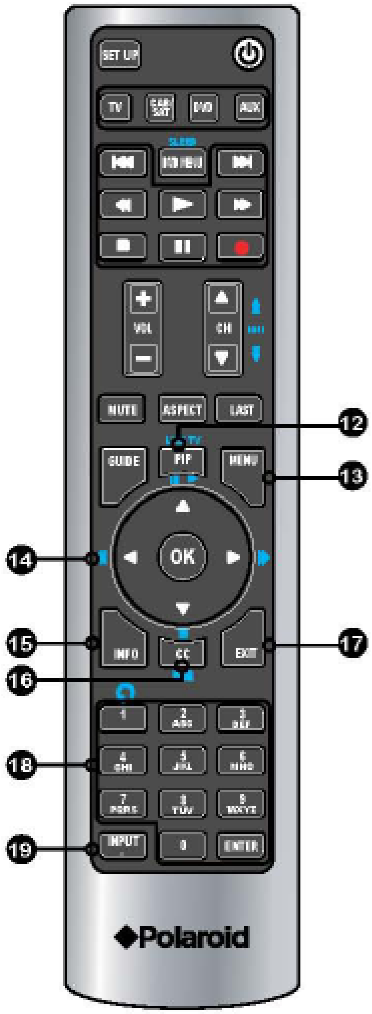
TV CABLE/AIR
Connects RF input from VHF/UHF antenna or cable to receive high/standard definition television.

AC IN
Connects to the AC power cord.

Remote Control



1	⏻	Turns the LCD TV on and off
2	SET UP	Remote control universal code setup. For more information on setting up your remote control, please see the "Programming Your Remote Control" section(refer to page47)
3	TV	Controls this LCD TV
	CAB/SAT	Controls Cable Converter or Satellite Receiver
	DVD	Controls DVD player or Video player
	AUX	Controls Audio Amplifier
4	SLEEP	Cycles through the LCD TV sleep time: OFF/30/60/90/120 mins
5	● II ▶ ■ ⏮ ⏪ ⏩ ⏭	Other device function keys
6	VOL+-	Increases and decreases volume
7	CH▲▼	Change channel up and down
8	ASPECT	Cycles through Wide mode settings: NORMAL/FULL/WIDE/ZOOM
9	MUTE	Pressing once mutes audio. Pressing again restores audio
10	LAST	Returns to previously selected channel
11	GUIDE	In TV mode, pressing GUIDE displays the Program Guide on the screen



⓬	**PIP**	Turns PIP/POP on and off
⓭	**MENU**	Displays the OSD menu on the screen.
⓮	◄ ► ▲ ▼,OK	Cycles through OSD options and selects individual menu items. OK confirms option settings
	OK	In TV mode, pressing OK to display a channel list
⓯	**INFO**	Displays information on the LCD TV screen such as input source, channel, program title.
⓰	**CC**	Cycles through the Closed Caption: ▪Analog Closed Caption:OFF/CC1/CC2/CC3/CC4/Text1/Text2/Text3/Test4 ▪Digital Closed Caption: Service1/Service2/Service3/Service4/Service5/Service6/OFF
⓱	**EXIT**	Exits the OSD menu
⓲	**0-9/ENTER**	Pressing a number selects a channel. Following selection, pressing ENTER activates the channel, or channel activates automatically in 3 seconds
⓳	**INPUT**	Pressing INPUT to display a source list, use ▲ ▼buttons to select the video equipment connected to the video inputs of your LCD TV: TV/VIDEO1/VIDEO2/VIDEO3/VIDEO4/VIDEO5/VIDEO6/VIDEO7/COMPUTER
	-	In TV mode, use with 0-9 and ENTER buttons to select a digital channels

The operation of each OSD control is described in the following table:

Menu	Options	Sub-Options	Function and Description
VIDEO	**Picture Mode**	Vivid →Hi-Bright →Cinema →Sport→User.	Press repeatedly for different picture modes: Vivid →Hi-Bright →Cinema→Sport →User.
	Contrast	0…100 **(75)**	Fine tune the contrast.
	Brightness	0…100 **(50)**	Fine tune the brightness.
	Saturation	0…100 **(50)**	Fine tune the contrast.
	Hue	-30…+30 **(0)**	Fine tune the contrast.
	Sharpness	0…7 **(4)**	Fine tune the contrast.
	Color Temperature	Cool	Set the color temperature type.
		Middle	
		Warm	
		User	Red/Green/Blue: -19…+19
	Noise Reduction	Off / Low / Strong / Medium	Select to reduce the noise level of connected equipment: Off / Low / Strong / Medium.
	VGA	Auto Adjust	Press the OK button to automatically adjust the display settings to optimize the performance based on the VGA mode.
		H. Position	Adjusts the position of the picture left and right in the window.
		V. Position	Adjusts the position of the picture up and down in the window.
		CLOCK	Controls the width of the picture based on the VGA mode.
		Phase	Controls the signal phase. It can improve the focus clarity and image stability based on the VGA mode.
AUDIO	**Bass**	0…100 **(50)**	Fine tune the bass value.
	Treble	0…100 **(50)**	Fine tune the treble value.
	Balance	-50…+50 **(0)**	Fine tune the balance value.
	Sound Effect	Surround	Select the preset effect mode to match your music type and achieve stunning effects.
		Live	
		Dance	
		Techno	
		Classic	
		Soft	
		Rock	
		POP	
		Off	Close this function.
	MTS	Mono	Set the sound type, which is only available when input source is TV.
		Stereo	
		Sap	
	SPDIF Type	**PCM**, OFF, Dolby Digital	Allows the selection of the digital sound format: PCM / OFF / Dolby Digital.
	Audio Language	English / Spanish / French	Allows the selection of the audio language: English / Spanish / French.
	Speaker		Allows the selection of turning the TV speakers on or off.

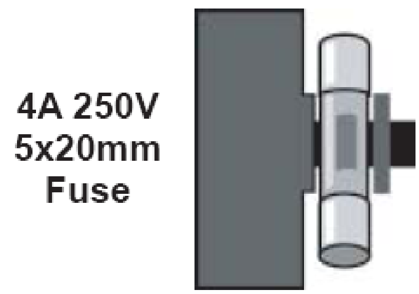
TV	**Channel Scan**	Auto search channels.	Auto-search channels and put the programs into memory.
	Tuner Mode	**Cable**	Select the tuner mode. Cable_STD/HRC/IRC Auto detect
		Air	
	Channel Skip	Set the channel that you want to skip.	If a channel is set to SKIP, when scanning up/down channels the selected channel will be skipped.
	Time Zone	**Eastern Time,** Indiana, Central Time, Mountain Time, Arizona, Pacific Time, Alaska and Hawaii	Set time zone.
SETUP	**OSD Language**	**English** / Spanish / French	Set language.
	Closed Caption	**Analog Closed Caption**	Select one of the basic analog closed caption options: OFF / CC1 / CC2 / CC3 / CC4
		Digital Closed Caption	Select one of the digital closed caption options: Service1 / Service2 / Service 3 / Service4 / Service5 / Service6 / OFF
		Caption Style	Customize the settings for the digital closed caption option selected.
	Parental	Input Password	Enter a 4-digit pin code. The default pin code is "0000"
		Channel Lock	Set the channel that you want to lock.
		Video Lock	Set the input source that you want to lock.
		Change password	Input the old password first, and then input your new password.
	Gamma		Allows for the adjustment of the display's gamma correction. It fine tunes both brightness and the red / green / blue ratios: On / Off / Middle.
	Reset Default		Restores factory settings.

3. Troubleshooting / Flow Charts

Note: Reseat all cables, check fuse by AC plug, perform a clear or reset in factory mode and retest before ordering parts.

Can't power on your TV?
This TV is equipped with a safety fuse. In the event of an electrical storm or power outage the safety fuse is designed to protect your TV. If your TV has no power, check the fuse by prying the cover off, following the illustration below. If the fuse is blown, replace with a 4 A 250 V – 5 x 20 mm Time Lag Fuse (Slow Blow) fuse.





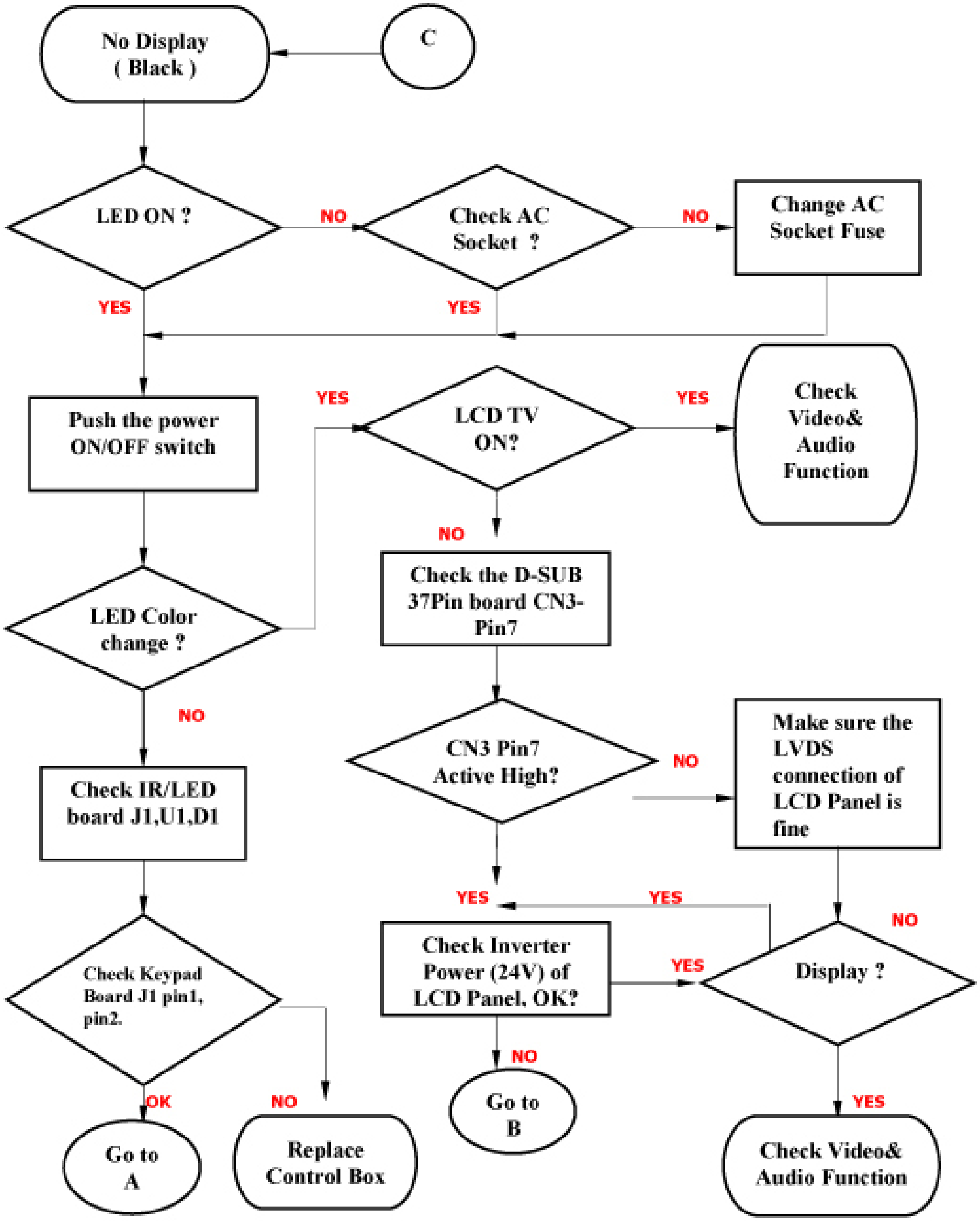
Having trouble with setting your Parental Controls (V-Chip)?
The factory preset password is 0000. This password must be used first before setting your own personal password. It is recommended that you keep your personal password in a safe place and away from children. In the event you loose your personal password the master password is 8202. The master password overrides all passwords. The master password can't be changed and should be kept in a safe place away from children.

Having trouble with setting Picture-in-Picture settings?
The Picture-in-Picture will not work using Component 1 and Component 2 as the input sources.

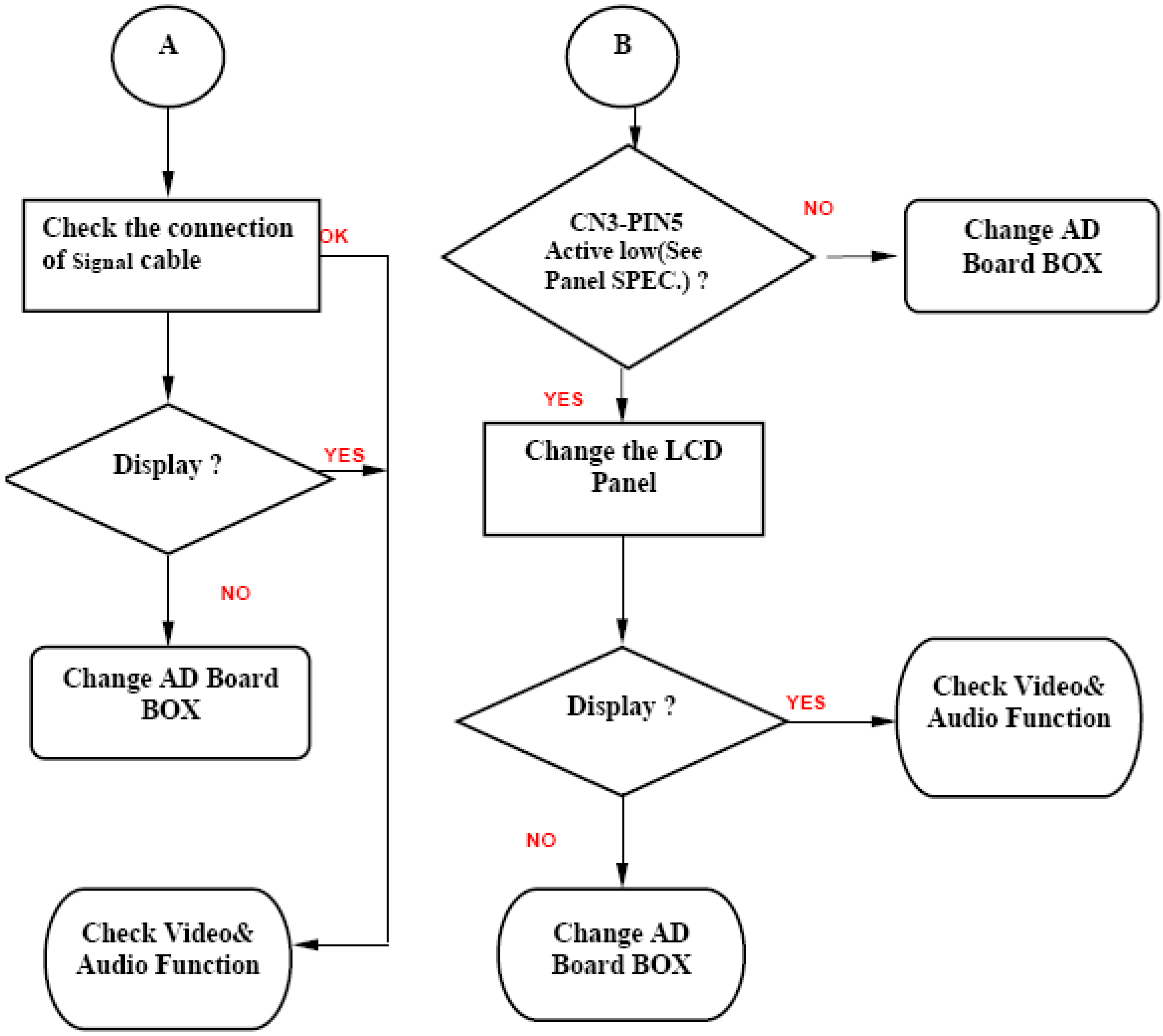
Factory Mode Procedure

(1) Power on TV.
(2) Press volume up and channel up buttons on the TV simultaneously and release.
(3) Power off TV with remote or power button to exit.

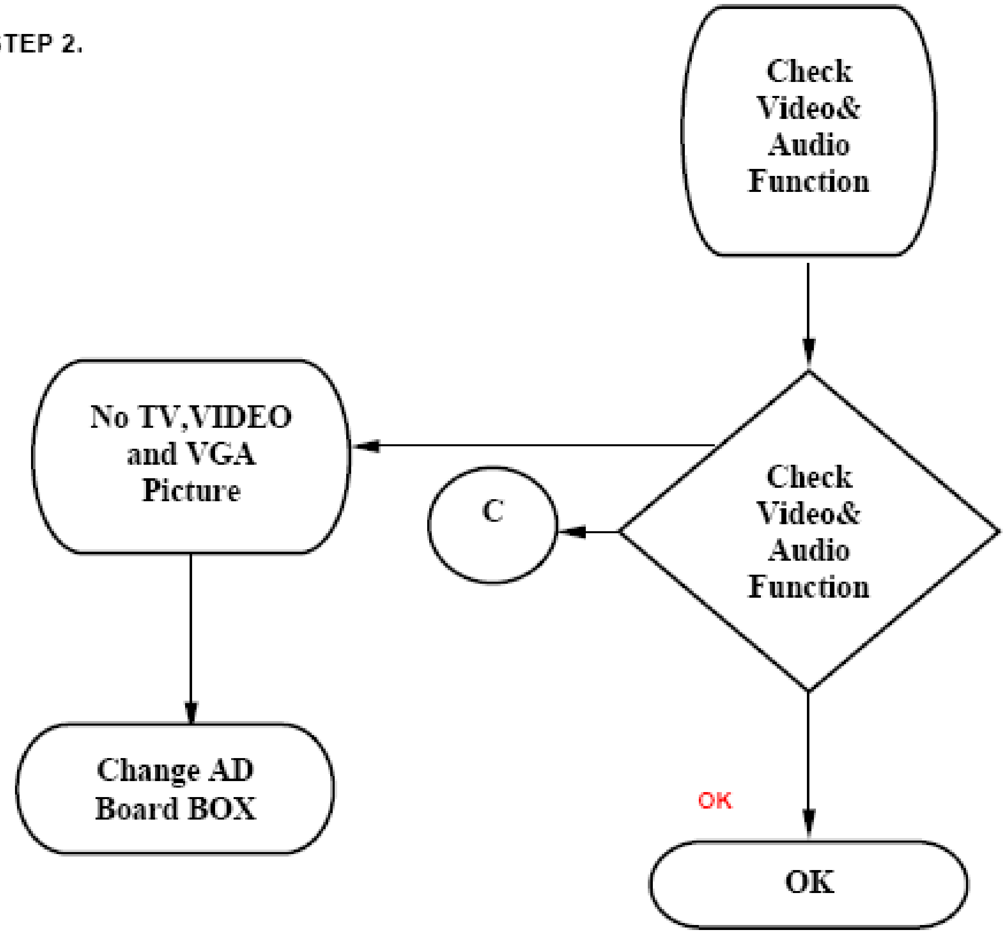
STEP 1.



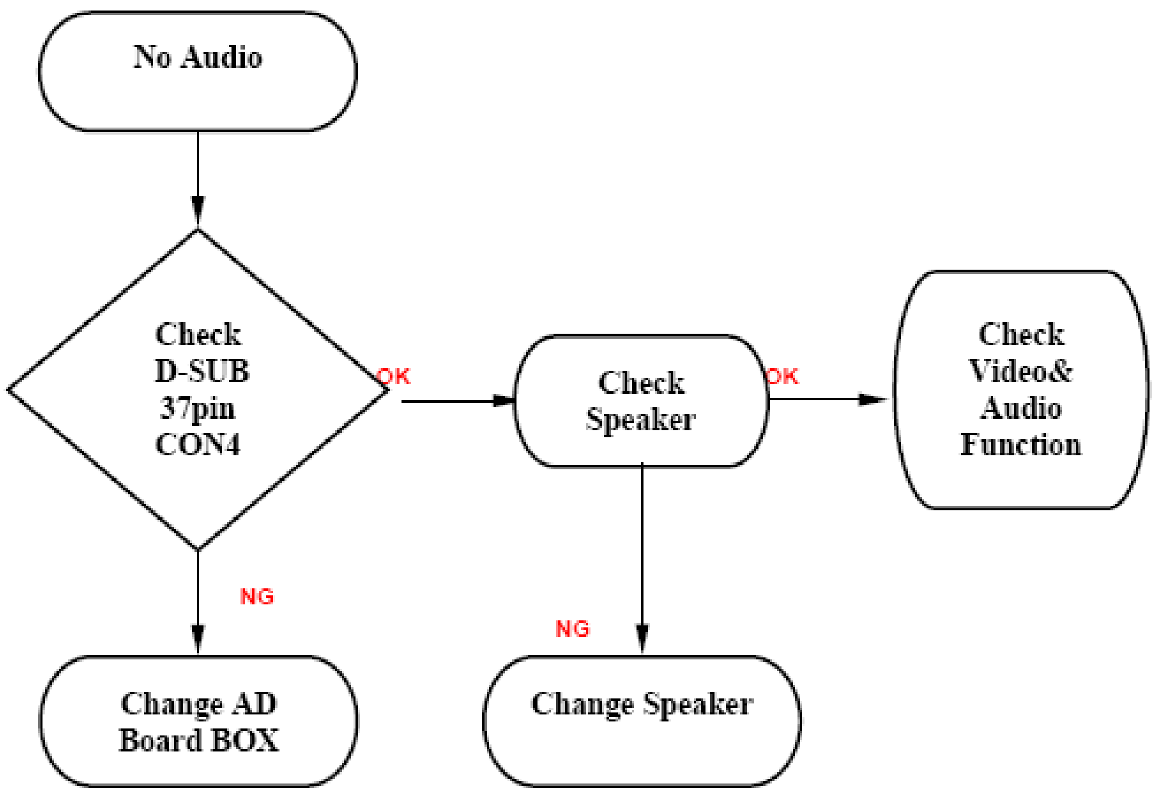
No Display (Black)
C
LED ON ?
NO
Check AC Socket ?
NO
Change AC Socket Fuse
YES
YES
Push the power ON/OFF switch
YES
LCD TV ON?
YES
Check Video& Audio Function
NO
Check the D-SUB 37Pin board CN3-Pin7
LED Color change ?
NO
CN3 Pin7 Active High?
NO
Make sure the LVDS connection of LCD Panel is fine
Check IR/LED board J1,U1,D1
YES
YES
NO
Check Inverter Power (24V) of LCD Panel, OK?
YES
Display ?
Check Keypad Board J1 pin1, pin2.
NO
YES
OK
NO
Go to B
Go to A
Replace Control Box
Check Video& Audio Function


A
Check the connection of Signal cable
OK
Display ?
YES
NO
Change AD Board BOX
Check Video& Audio Function
B
CN3-PIN5 Active low(See Panel SPEC.) ?
NO
Change AD Board BOX
YES
Change the LCD Panel
Display ?
YES
Check Video& Audio Function
NO
Change AD Board BOX

STEP 2.


Check
Video&
Audio
Function
No TV,VIDEO
and VGA
Picture
C
Check
Video&
Audio
Function
Change AD
Board BOX
OK
OK

STEP 3.


No Audio
Check
D-SUB
37pin
CON4
OK
Check
Speaker
OK
Check
Video&
Audio
Function
NG
NG
Change AD
Board BOX
Change Speaker

4. Polaroid Display Cell Defect Specification

In some cases, a panel may have defective cells that cannot be controlled.

These defective cells can be categorized into two types;

(1) Non-lighting or dark cell defect: defect in which the cell is always off

(2) Non-extinguishing or bright cell defect: defect in which the cell is always on

The Polaroid Display Cell Defect Specifications below define the allowed limits for display cell defects and are used as the criteria in determining whether an LCD panel is replaced.

7 or more defective pixels across the entire LCD screen Polaroid will repair (replace LCD panel) or replace the TV.

5. Before Returning This Product to the User

Before returning this product to the user, always perform the following safety checks:

(1) Inspect all wiring to be sure no wires are pinched between the chassis or any metal parts.

(2) Inspect all protective devices for proper installation, including non-metallic controls, insulation materials, cabinet backs, compartment covers, and shields.

(3) Verify that no shock hazard exists on any part of the chassis, especially any metal components including cable connection points, chassis hardware, or antennas (if equipped). Use the following procedure:

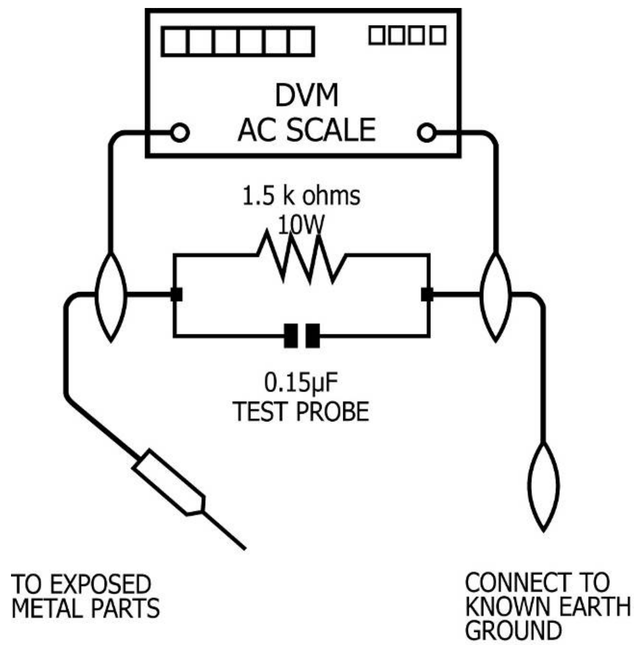
a. Plug the AC cord directly into a 120 V AC outlet.

b. Create a test circuit consisting of a 1.5k ohm, 10 watt resistor paralleled by a 0.15 μF capacitor.

c. Using an AC voltmeter (sensitivity of 5000 ohm per volt or higher), measure the voltage drop across the test circuit between all exposed metallic parts and a known earth ground. Measurement points include antenna, metal cabinet parts, screw heads, and metal knobs or controls. Measurement points can vary slightly even between revisions of the same model, so always conduct a thorough review of the chassis to locate metal points that a user may touch.

d. Any voltage reading of 0.375 Vrms AC (0.25 mArms) or higher indicates a potential shock hazard. **THIS CONDITION MUST BE CORRECTED BEFORE RETURNING THE PRODUCT TO THE USER!**

e. Repeat the above checks with the AC polarity reversed. A non-polarized adapter is required to reverse the polarity; DO NOT LEAVE THIS ADAPTER WITH THE USER! Under normal operation the product must use the proper polarity.



6. Disassembly Procedure

WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

When servicing an LCD or plasma TV, always observe the following safety guidelines:

- Wear a grounding (ESD) wrist strap, and use a grounded or dissipative work mat.
- Use a stable and strong work surface that is large enough to hold components you might remove.
- When removing components that are attached with a cable, unplug the cable before removing the screws to avoid damaging the cable.
- Use a magnetized screwdriver for removing screws.
- To help keep track of screws, place each component’s screws next to the component on your work surface.

ELECTROSTATIC DISCHARGE (ESD)

Components inside an LCD or plasma TV are sensitive to static electricity. Before servicing the TV, follow these guidelines:

- Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam.
- Remove replacement components from their antistatic bags only when you are ready to use them. Do not lay components on the outside of antistatic bags because only the inside of the bags provide electrostatic protection.
- Always hold components by their edges. Avoid touching the edge connectors. Never slide components over any surface.
- Wear a grounding wrist strap (available at most electronics stores) and attach it to a bare metal part of your workbench or other grounded connection.
- Touch a bare metal surface on your workbench or other grounded object before touching any components.

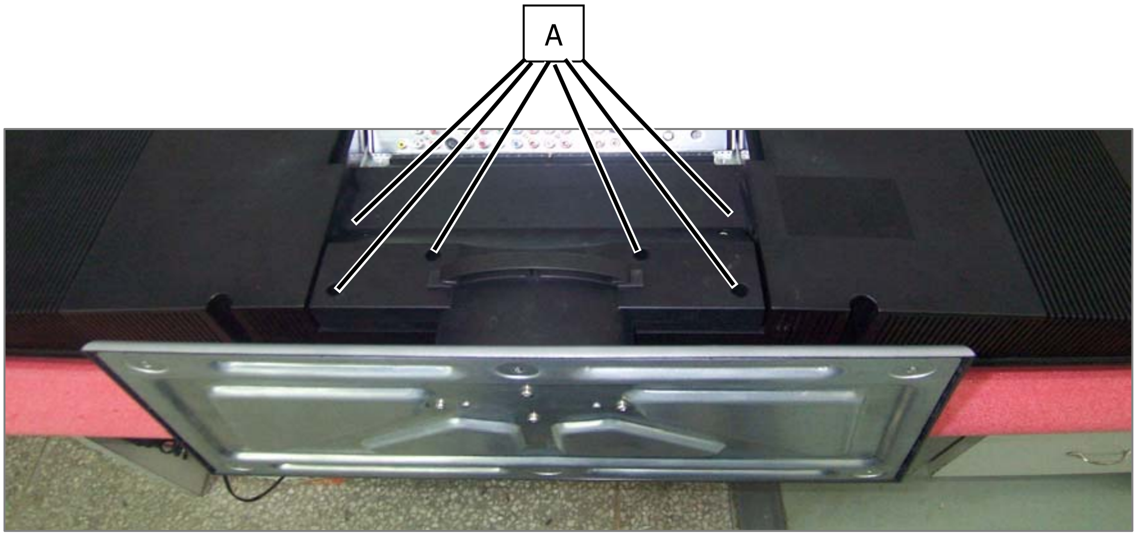
Stand and Control Box Removal

Lay TV flat on workbench. Be careful to protect the front bezel and LCD screen from being scratched. Use protective cloth between work bench and TV front.

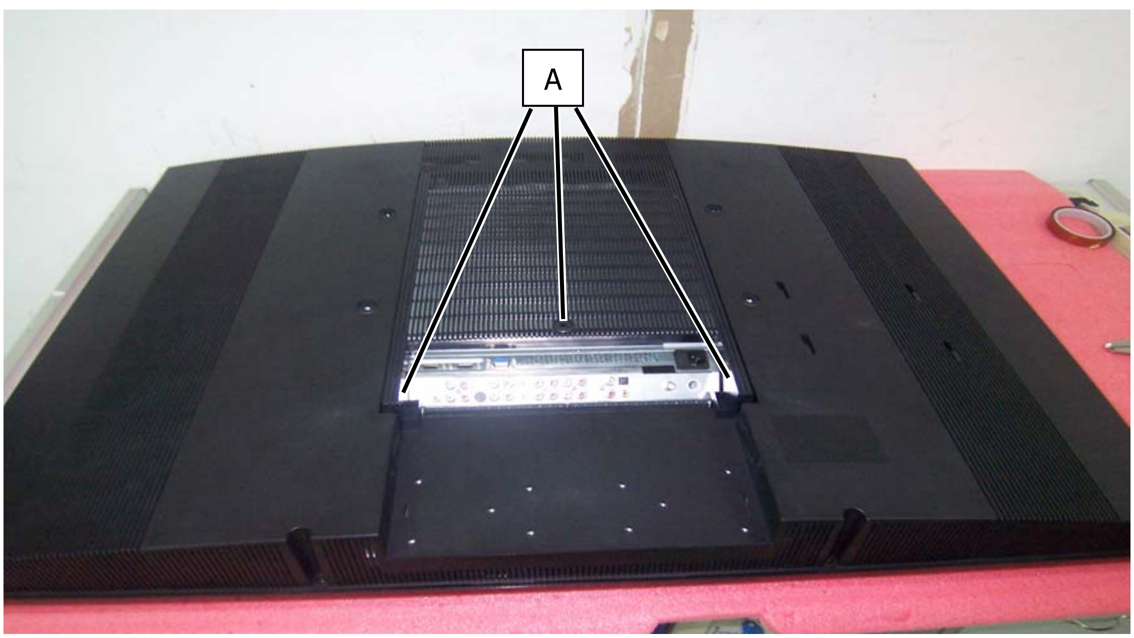
WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

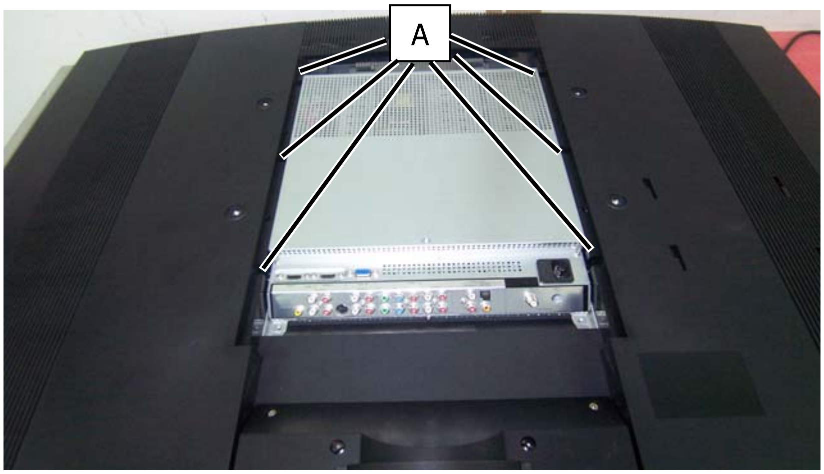
(1) Remove 6 screws (A) from the TV Stand.



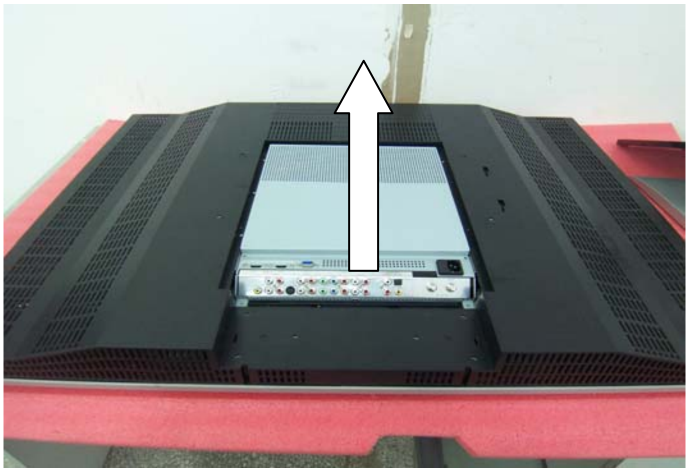
(2) Remove 3 screws (A) from the Control Box Cover, and remove the Cover from the TV.



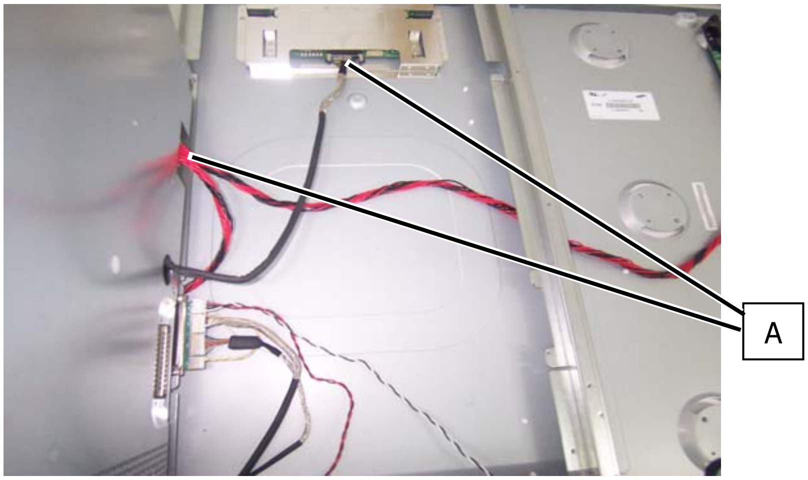
(3) Remove 6 screws (A) from the Control Box.



(4) Lift the Control Box upwards, and then towards the bottom of the TV to unhook it.



(5) Remove the aluminum foil and bracket from the end of the Control Box. Unplug the 2 cables (A) from the Control Box, and remove the Box from the TV.



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

Rear Cabinet Cover, LCD Panel and Front Bezel

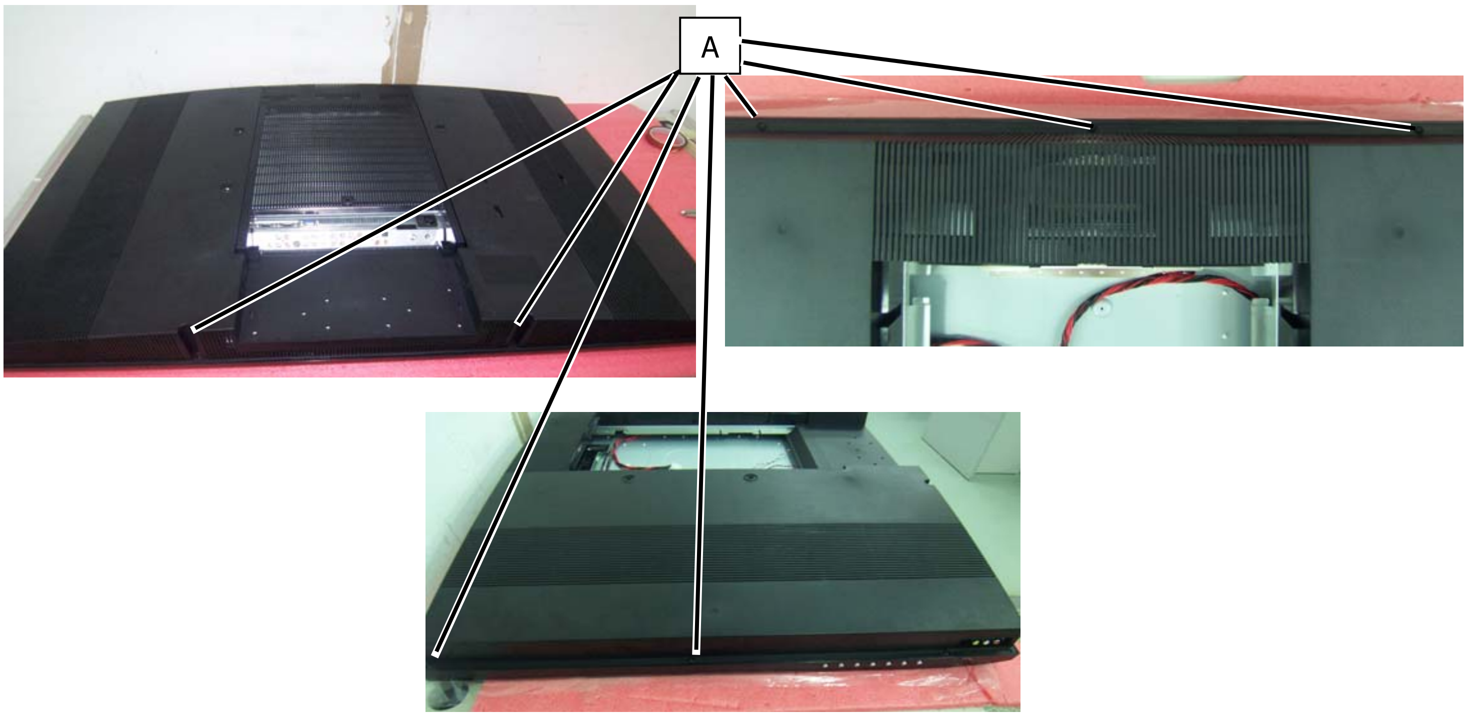


Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

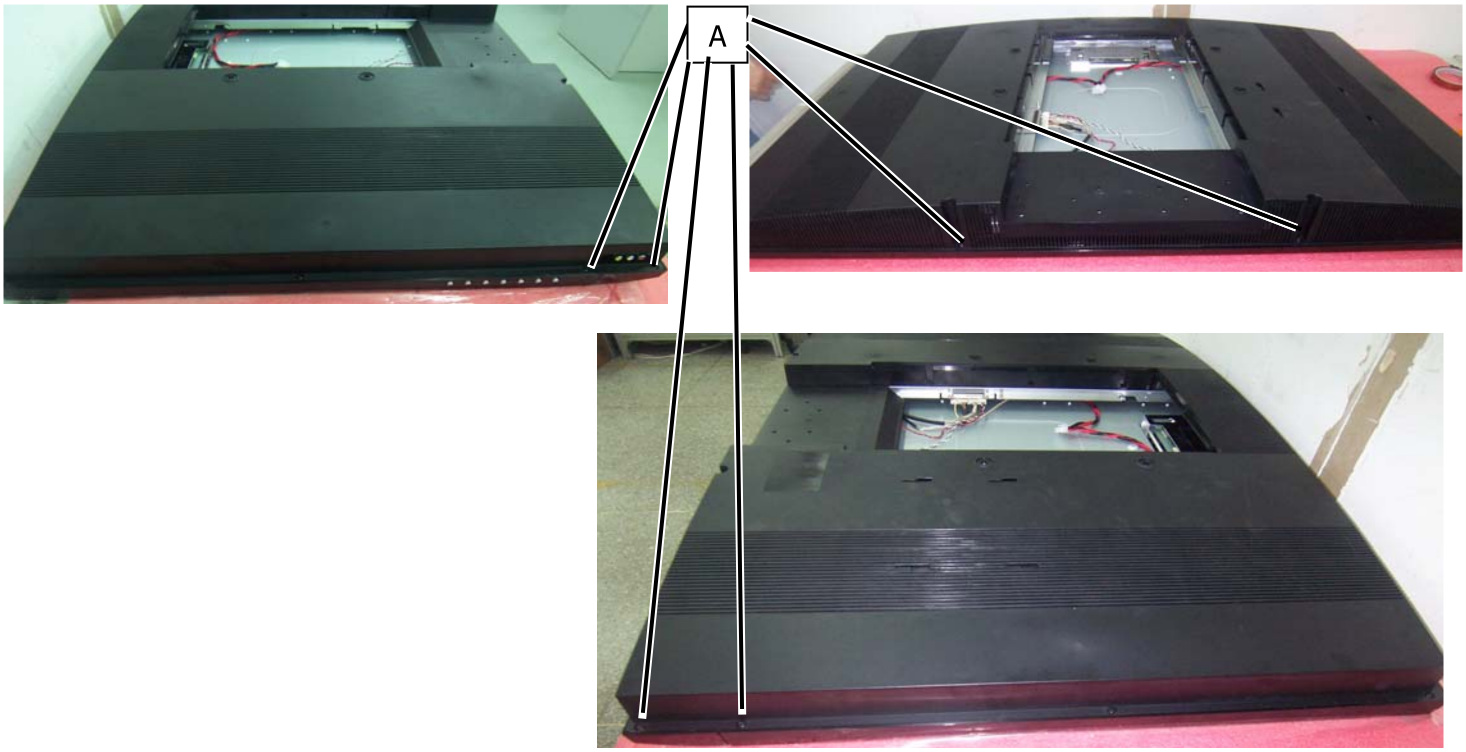


Note: OEM LCD panels were used in production. The following LCD panel disassembly/removal instructions may not apply to all models. Ensure LCD panel is completely detached from the bezel before removing so the bezel is not damaged.

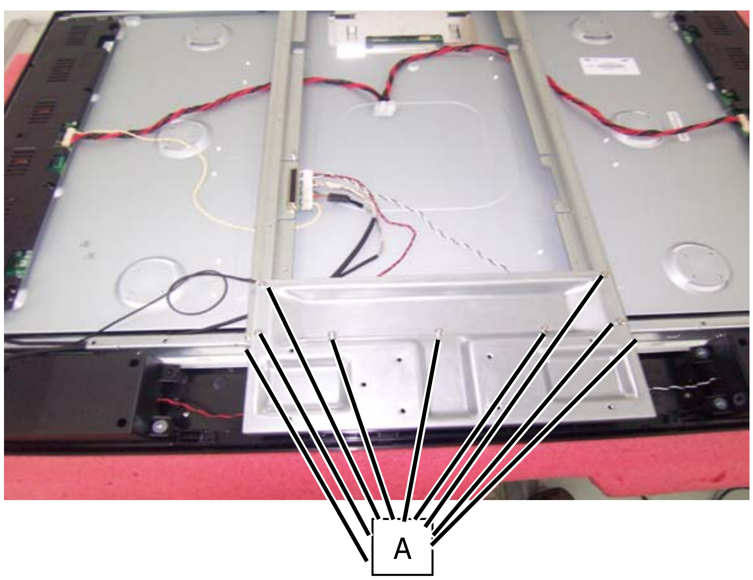
(1) Remove 6 screws (A) from the rear cabinet cover.



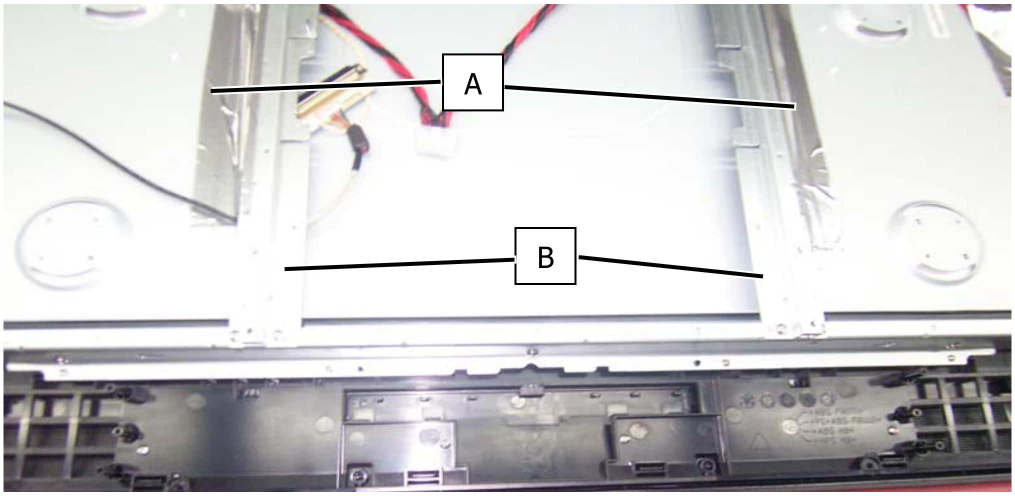
(2) Remove 6 screws (A) from between the bezel and rear cabinet cover, and remove the rear cabinet cover from the TV.



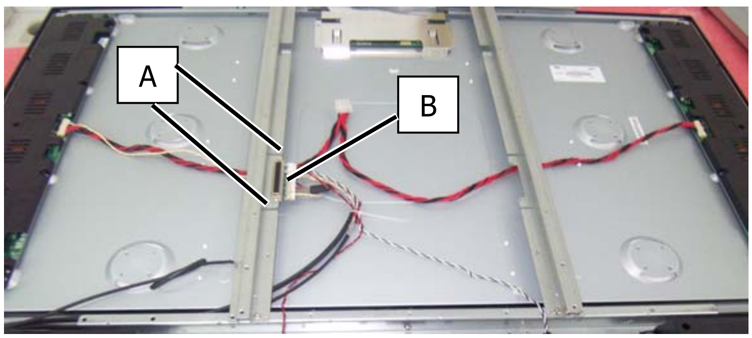
(3) Remove 9 screws (A) from the stand bracket and remove the stand bracket.



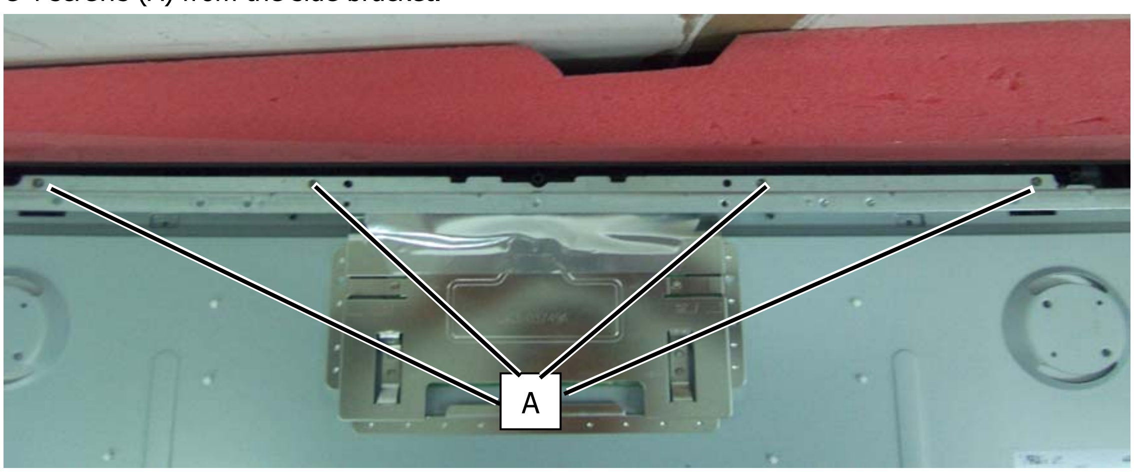
(4) Remove the aluminum foil (A) from the panel and SAVE for reassembly. Remove the brackets (B).



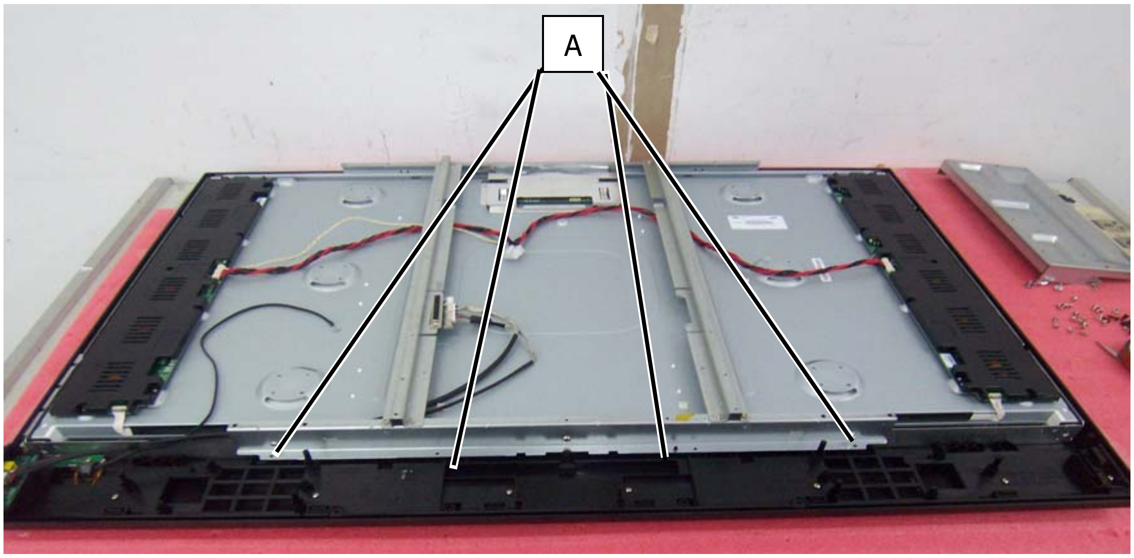
(5) Remove 2 screws (A). Disconnect the D-Sub Board (B).



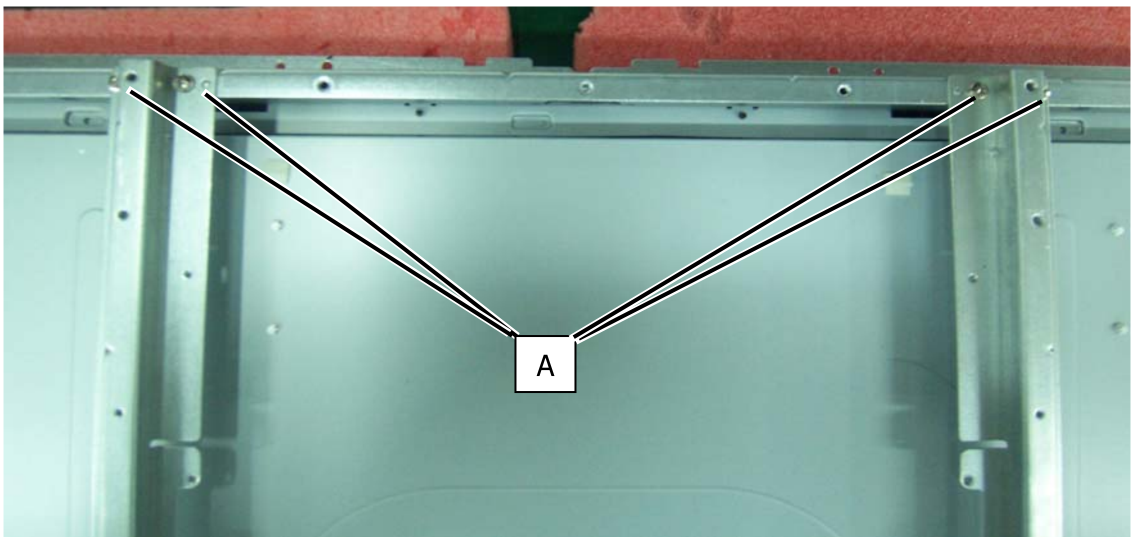
(6) Remove 4 screws (A) from the side bracket.



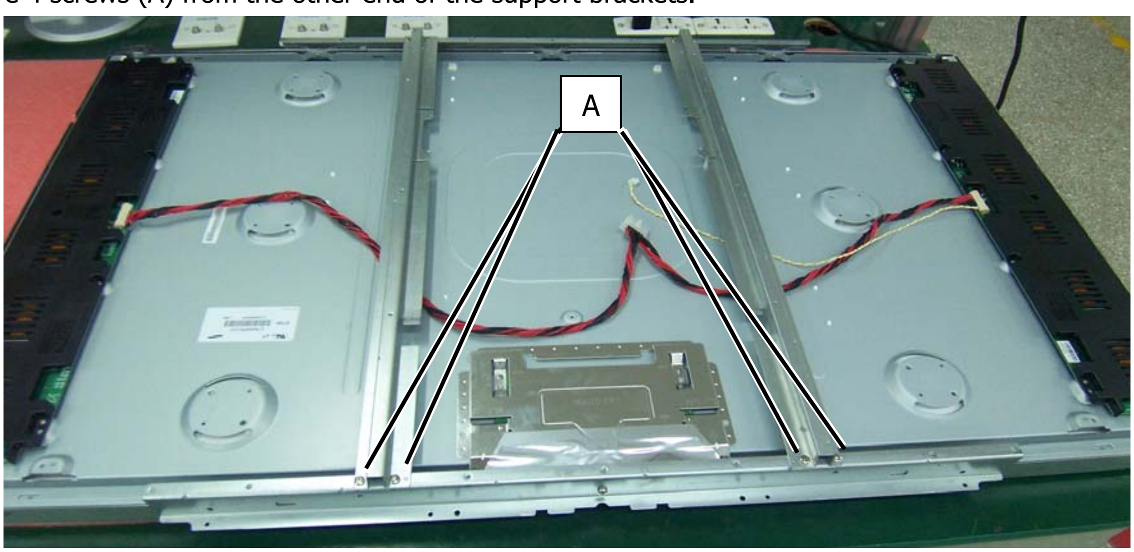
(7) Remove 4 screws (A) from between the bracket and front bezel.



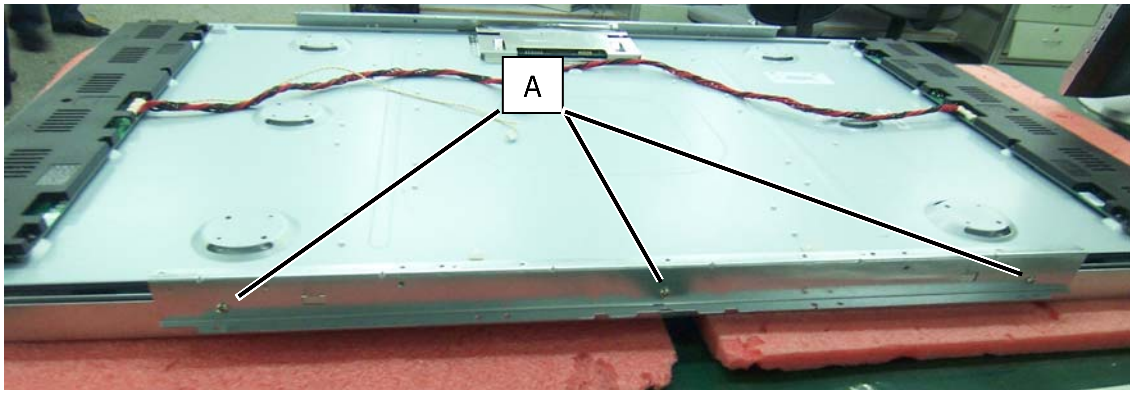
(8) Remove 4 screws (A) from one end of the support brackets.



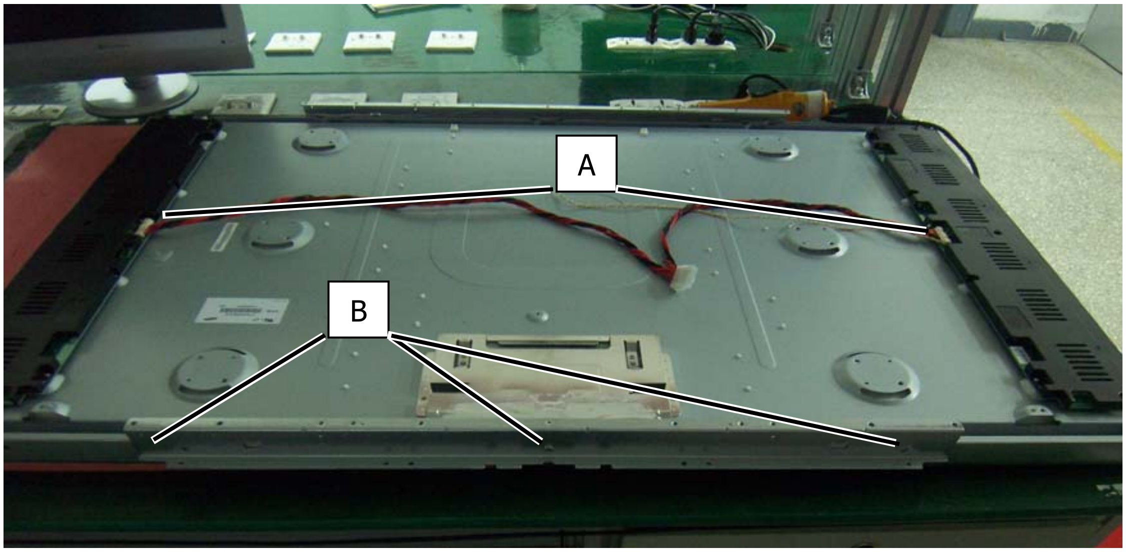
(9) Remove 4 screws (A) from the other end of the support brackets.



(10) Remove 3 screws (A) from one side of the panel.



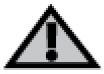
(11) Unplug the inverter cable (A) and remove 3 screws (B) from the other side of the panel.



(12) Remove the LCD panel from the TV.



NOTE: To avoid damage, TWO PEOPLE ARE REQUIRED to lift the LCD Panel from the TV.



Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

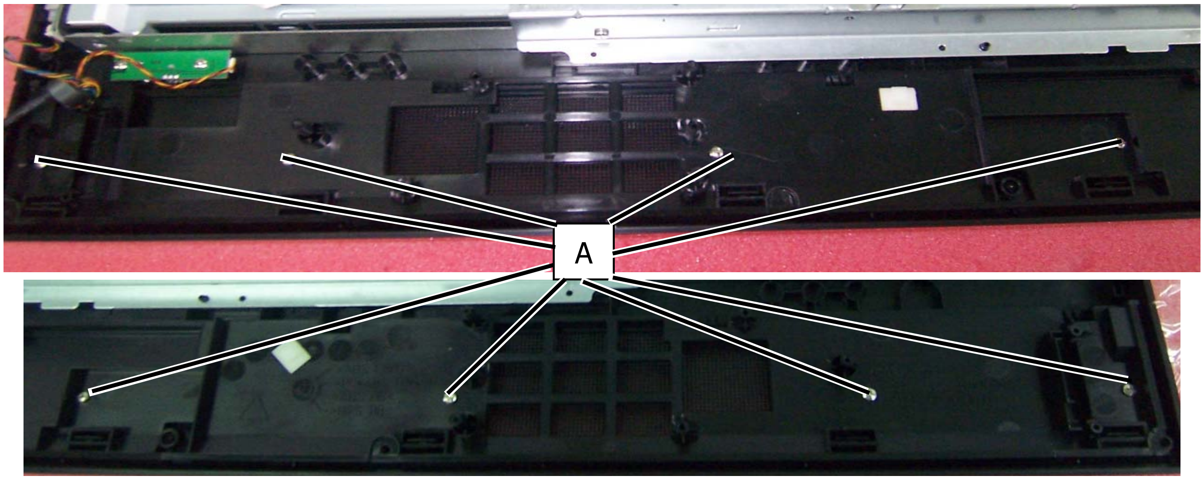
IR Board Removal and Replacement

WARNING

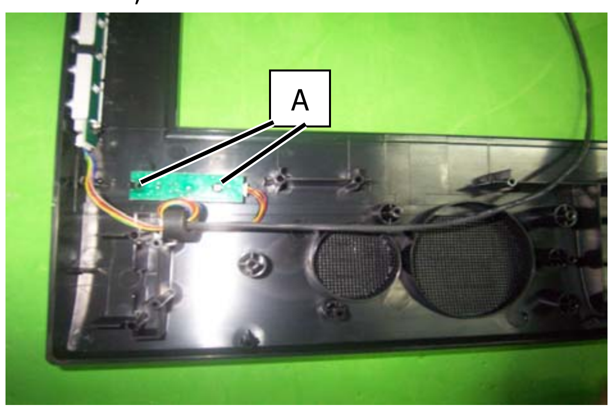
Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

(1) Disassemble control box cover and rear cabinet cover.

(2) Remove 8 screws (A) from front bezel and net cover.



(3) Remove 2 screws (A) from the IR Board, and remove the board from the TV.



CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

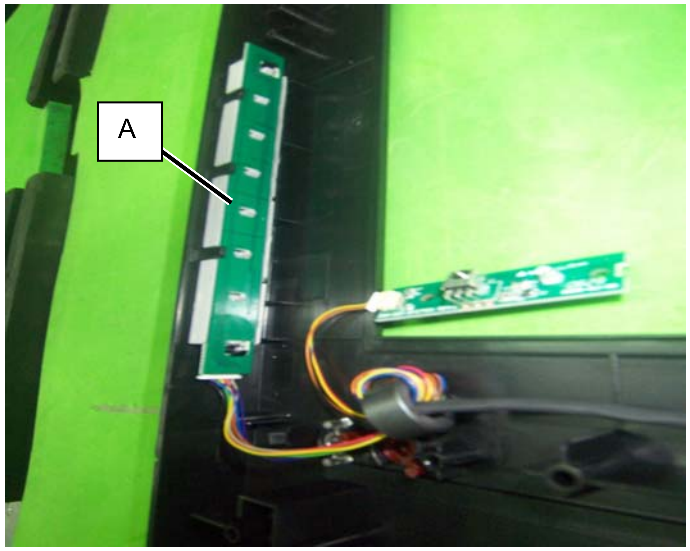
Front / Side Control Buttons Removal and Replacement

WARNING

Note: Before disassembly of any part the TV, make sure the power is OFF, and the power cord is removed from the wall outlet. Allow time for power within all system boards to discharge before you begin disassembly. Never insert any objects into the vent holes in the TV case.

(1) Disassemble control box cover and rear cabinet cover.

(2) The control button board is attached with glue. Use alcohol to soften the glue and remove the control button board (A).



(3) Replace control button board and use glue to fasten to front bezel.

CAUTION

Note: Before returning this product to the end user, you must follow the steps outlined in the section, Before Returning This Product to the User, on page 19. This procedure ensures that the chassis will not cause electric shock.

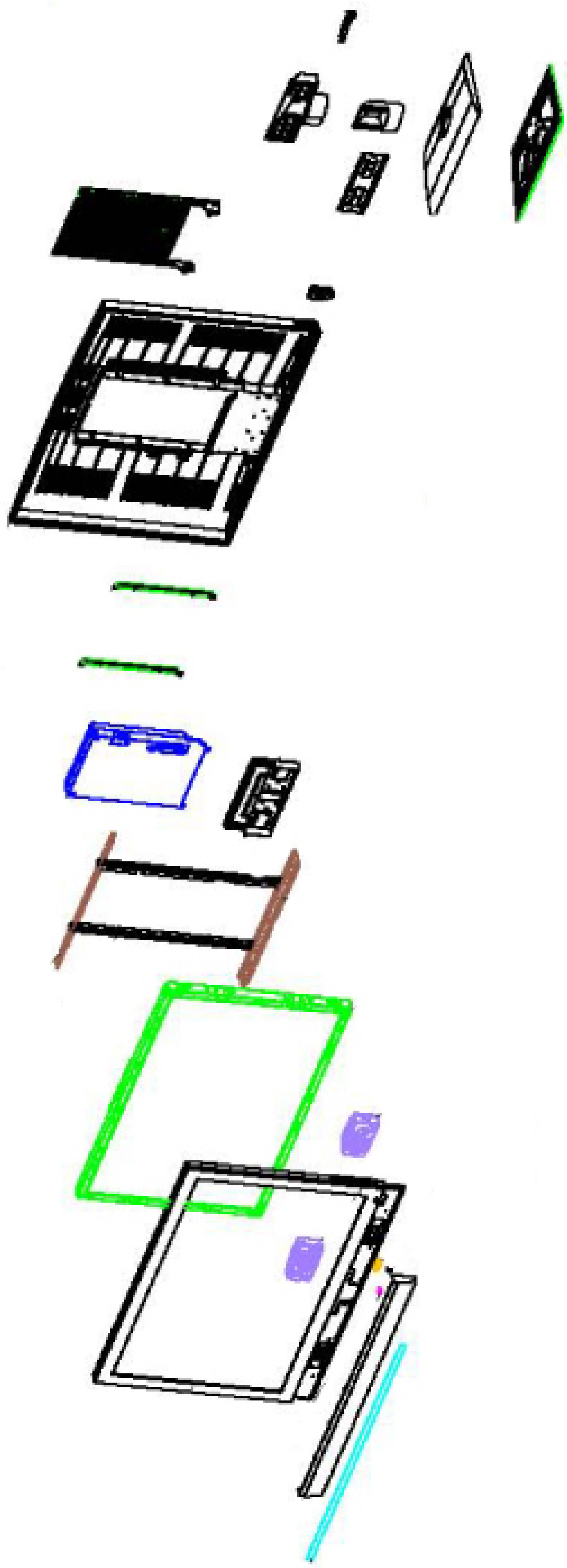
7. Spare Parts Lists

Note: **Reseat all cables, check fuse by AC plug, perform a clear or reset in factory mode and retest before ordering parts.**

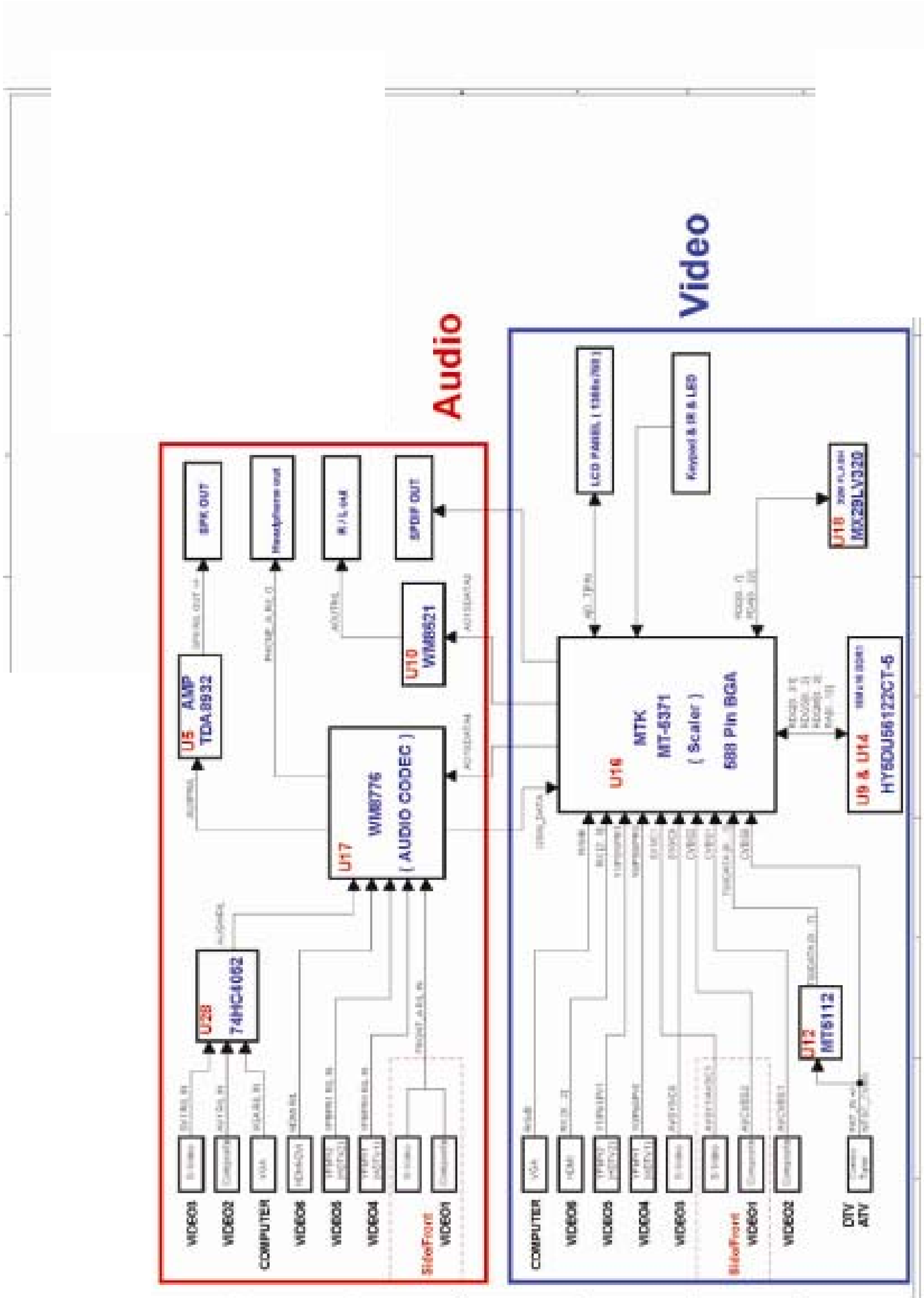
Polaroid Model TLA-04641C	
Part Number	**Description**
125-000-375POLAH	POLAROID LOGO
151-002-JL468UH	46 REAR CABINET
151-700-GF4611UAH	STAND ASSY BLACK
151-A00-GF469RUPH	FRONT BZL BLK/SILV
154-501-GF370-AH	26-42 FRT/SIDE BTN CVR SILV
600-181-3200-LIH	AC POWER CORD
621-181-2000JH	VIDEO CABLE
621-181-3020P-1JH	COMPONENT CABLE
631-030-GF461UA-JNH	LVDS CABLE (SAMSUNG L03)
705-146-001MH	46 LCD PANEL (SAMSUNG L03)
824-020-GF461XA-MH	SPEAKER R-L
845-C45-GF1XA-PEH	26-46 UNIVERSAL REMOTE SILV/BLK
899-A00-GF271XAH	26-46 FRONT/SIDE AV INPUT BD
899-E00-GF271XAH	26-46 IR BOARD ASSY
899-K00-GF271XAH	26-46 FRNT/SIDE CONTROL BTN BD
909-KS0-GF4613UAPH	46 CNTRL BOX ASSY (SAMSUNG L03)

Polaroid Model 4641-TLXB	
Part Number	**Description**
125-000-375POLAH	POLAROID LOGO
151-000-IF467W000H	IF46 BEZEL LOWER EM-007W
151-001-JL469R00-0H	JL46 REAR HOUSING EM-009R
151-002-JL468UH	JL46 REAR HOUSING CVR EM-008U
151-700-IF4613UAPH	46 STAND ASSY BLK
151-A00-GF469R7WS0	46 FRONT BEZEL BLK
154-500-GF370H	26-46 FRNT SIDE CNTRL BTN CVR BLK
600-181-3200-LIH	AC POWER CORD
621-181-2000JH	COMPOSITE VIDEO CBL
631-030-GF461UA-1H	LVDS CABLE
631-K16-GF461-AH	46 KEY BOARD CABLE
705-146-001MH	46 LCD PANEL (SAMSUNG L03)
824-020-GF461XA-MH	SPEAKER R-L
845-C45-GF1XA-PEH	26-46 UNIVERSAL REMOTE SILV/BLK
899-A00-GF271XAH	26-46 FRONT/SIDE AV INPUT BD
899-E00-GF271XAH	IR BOARD ASSY
899-K00-GF271XAH	FRNT SIDE CNTRL BTN BD ASSY
909-KS1-IF4613UAPH	46 CNTRL BX (SAMSUNG L03)

8. Exploded View Diagram

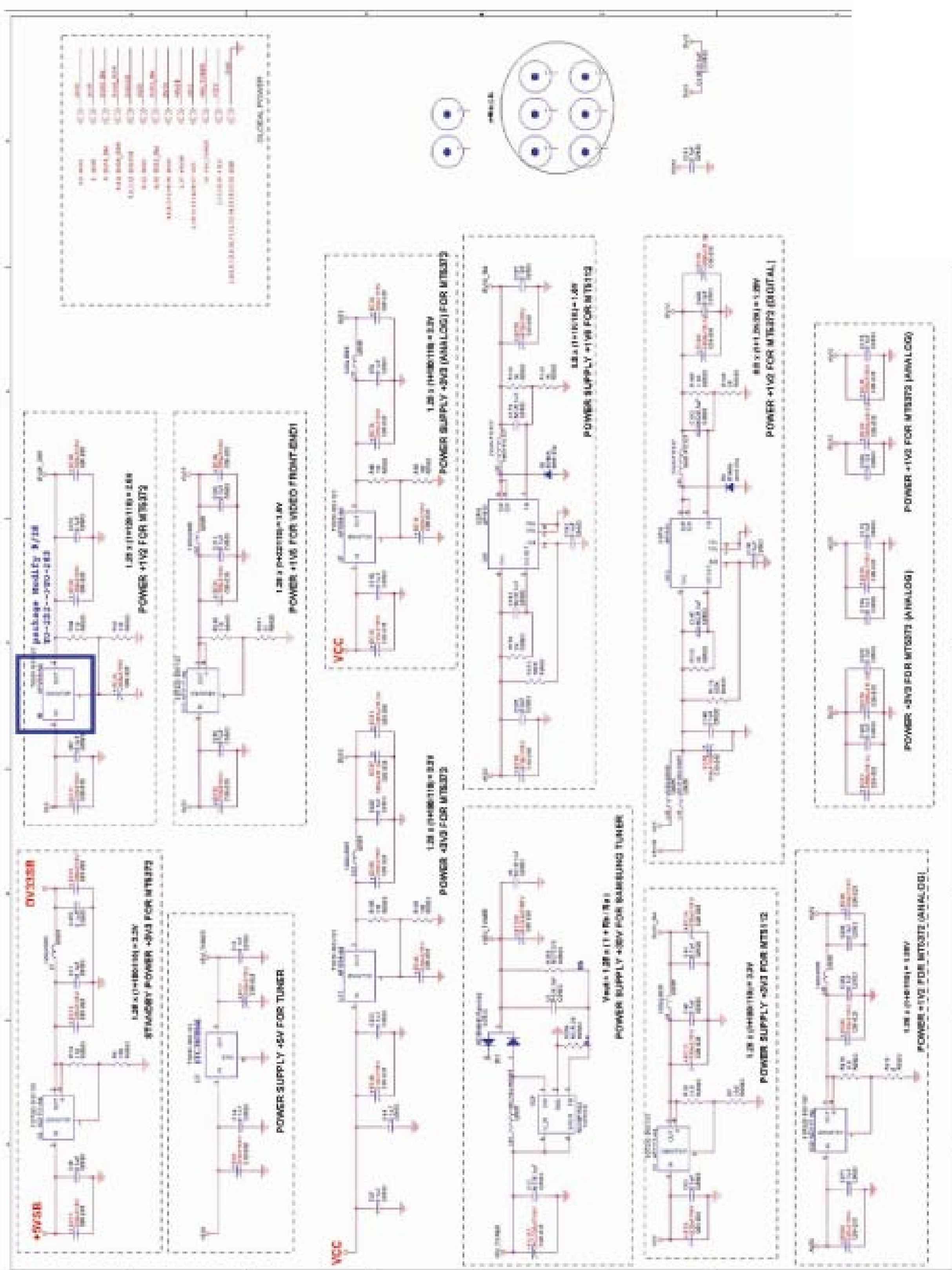


9. Block Diagram

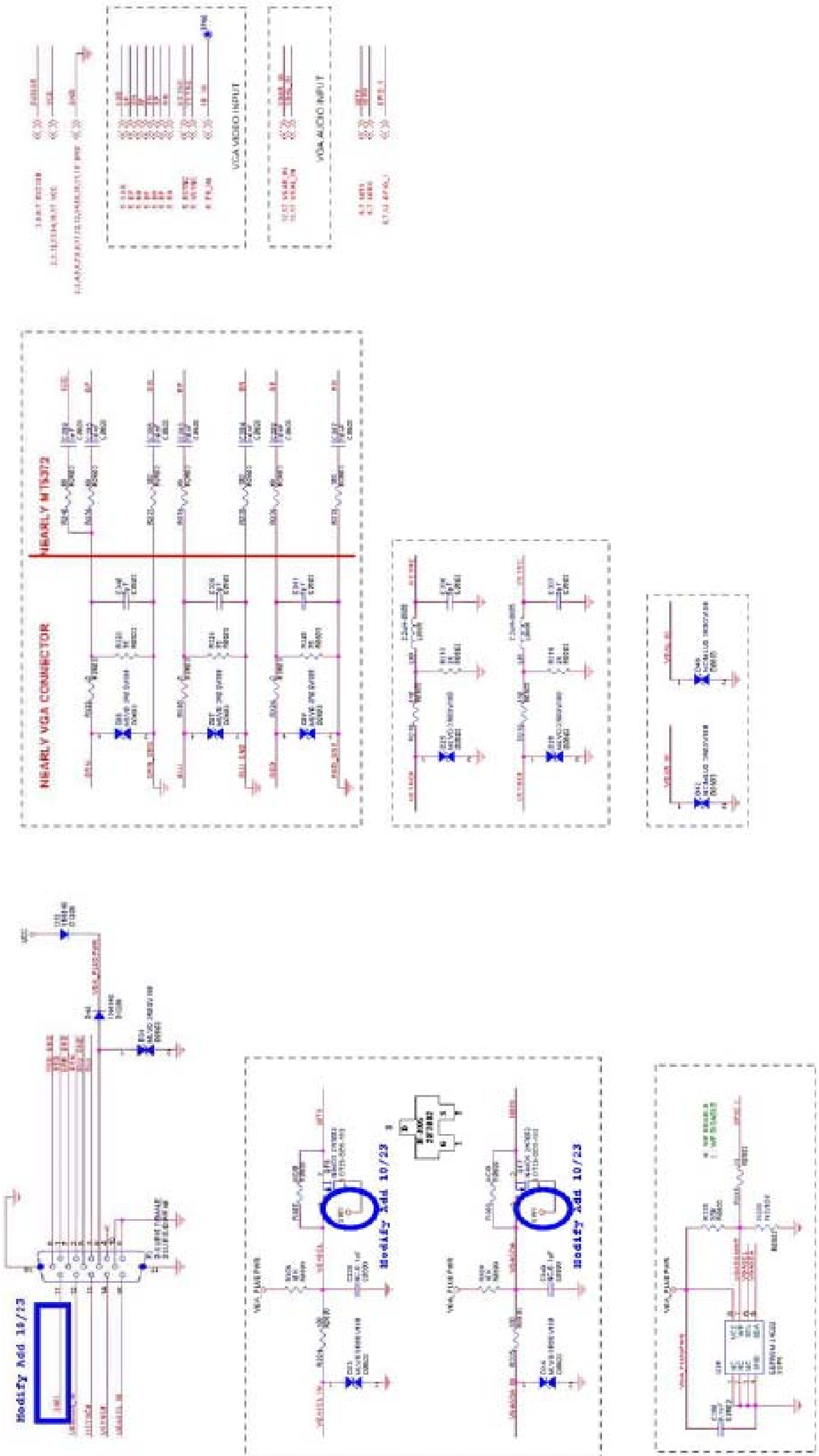


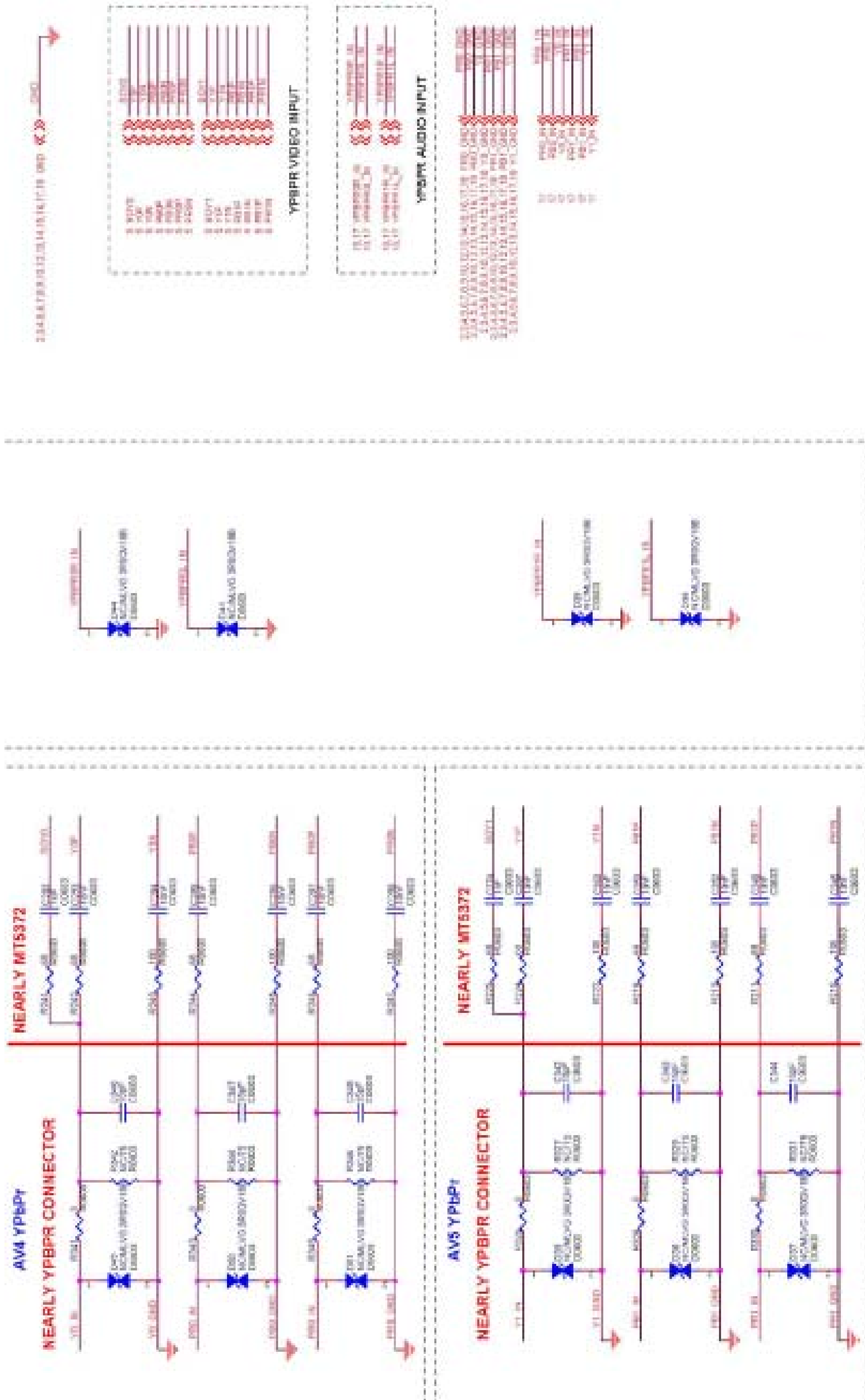
10. Schematics

Power

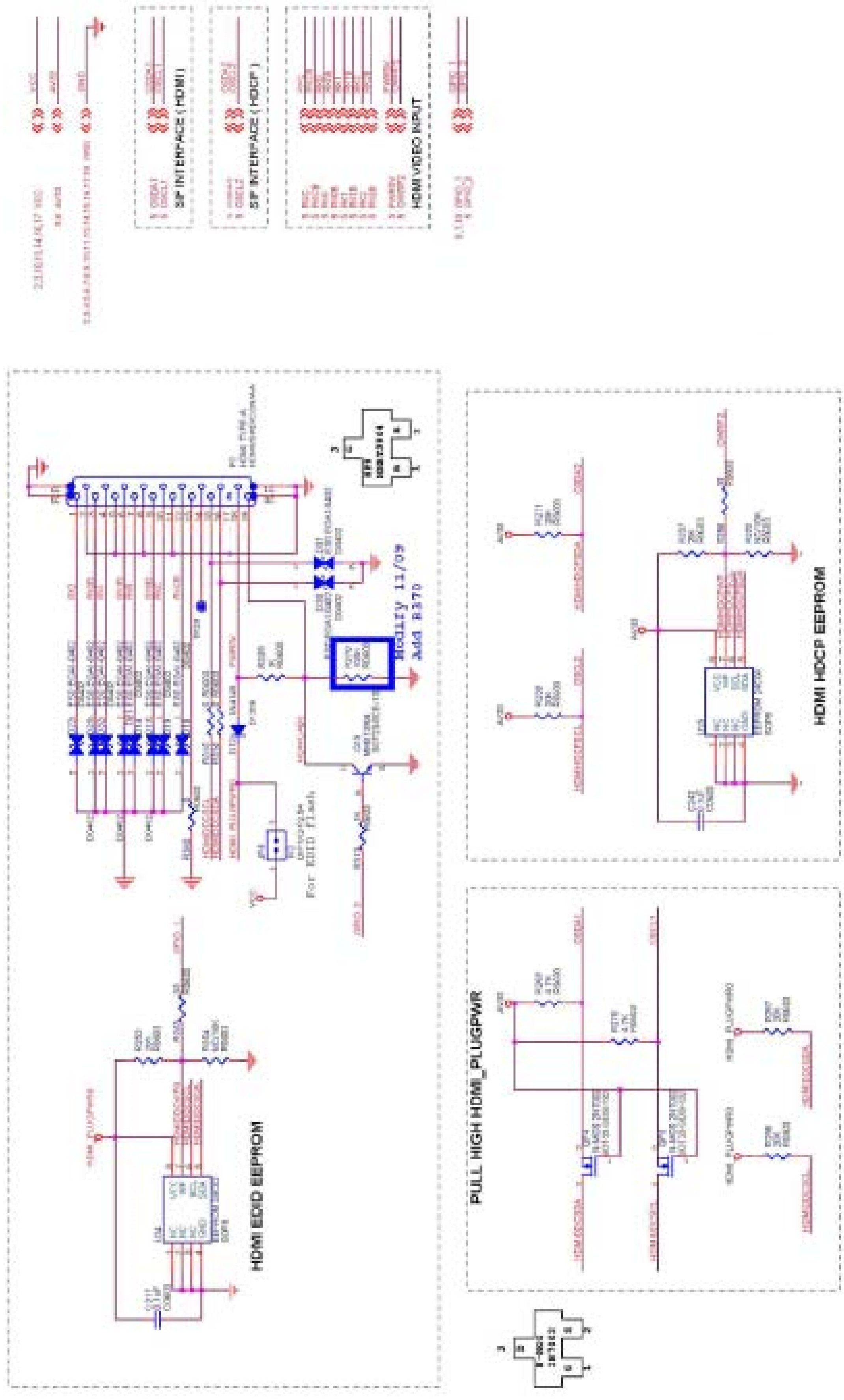


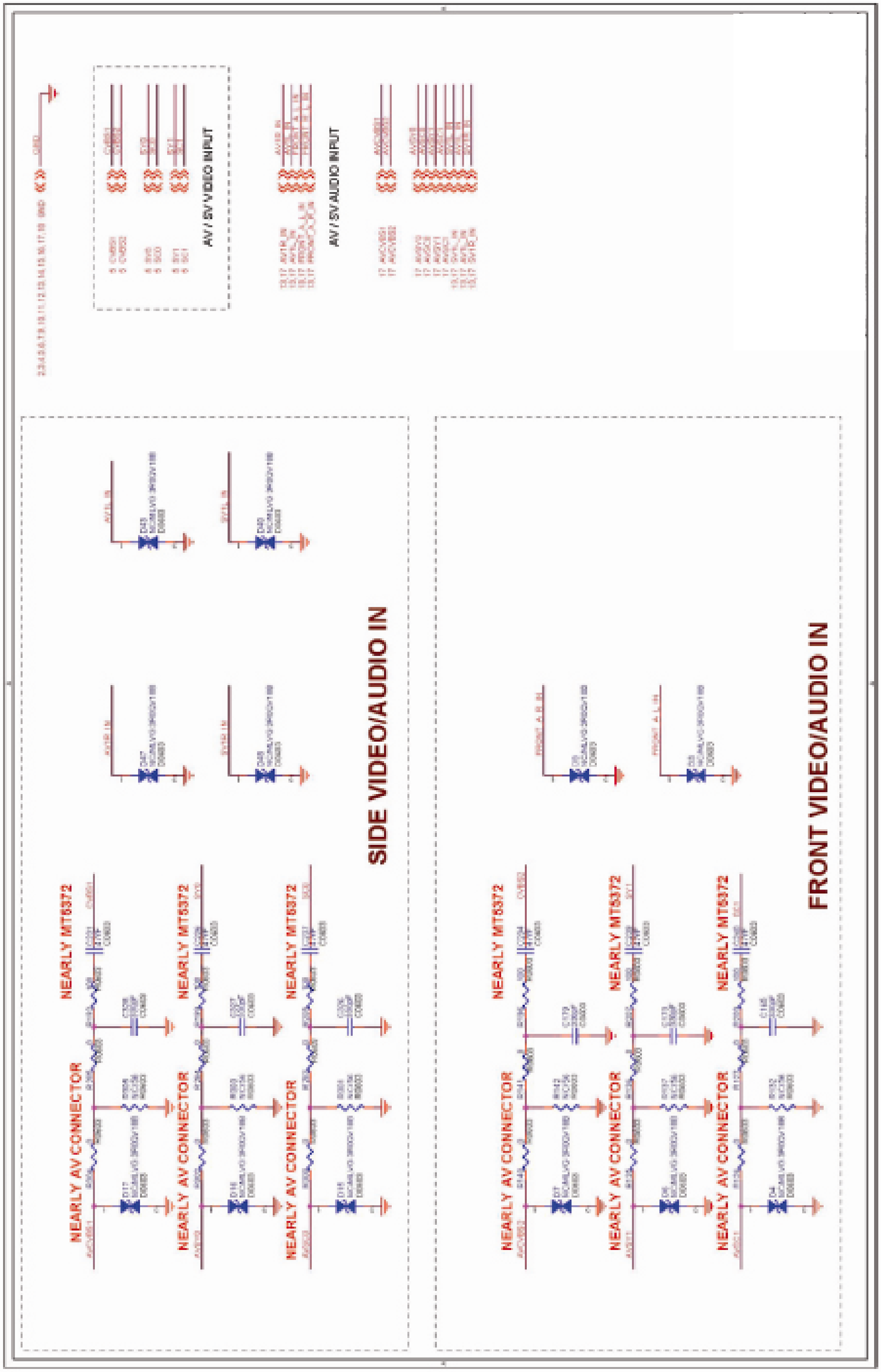
VGA Input



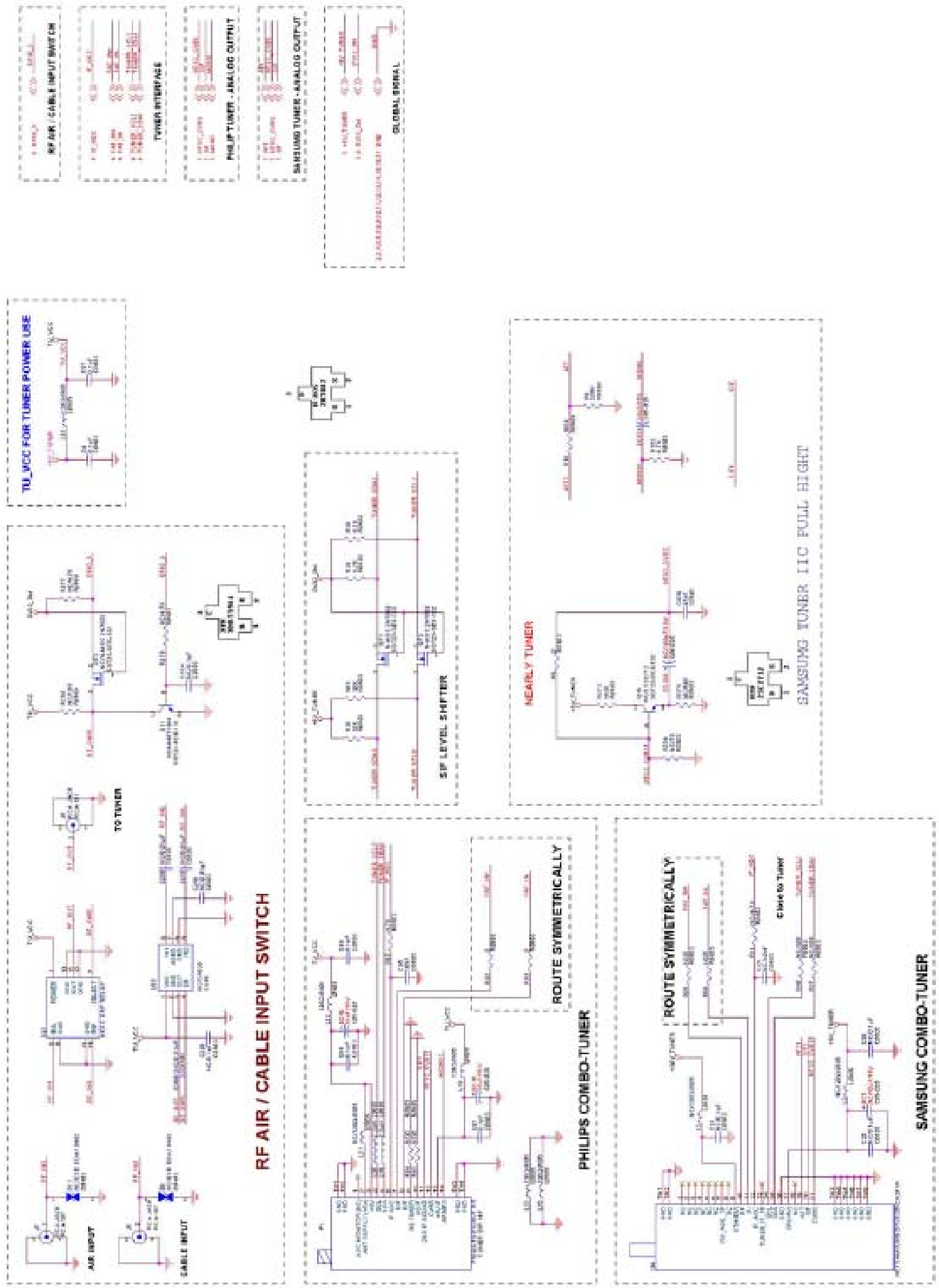

YPBPR VIDEO INPUT
YPBPR AUDIO INPUT
NEARLY MT5372
AV4 YPbPr
NEARLY YPBPR CONNECTOR
NEARLY MT5372
AV5 YPbPr
NEARLY YPBPR CONNECTOR

HDMI Input

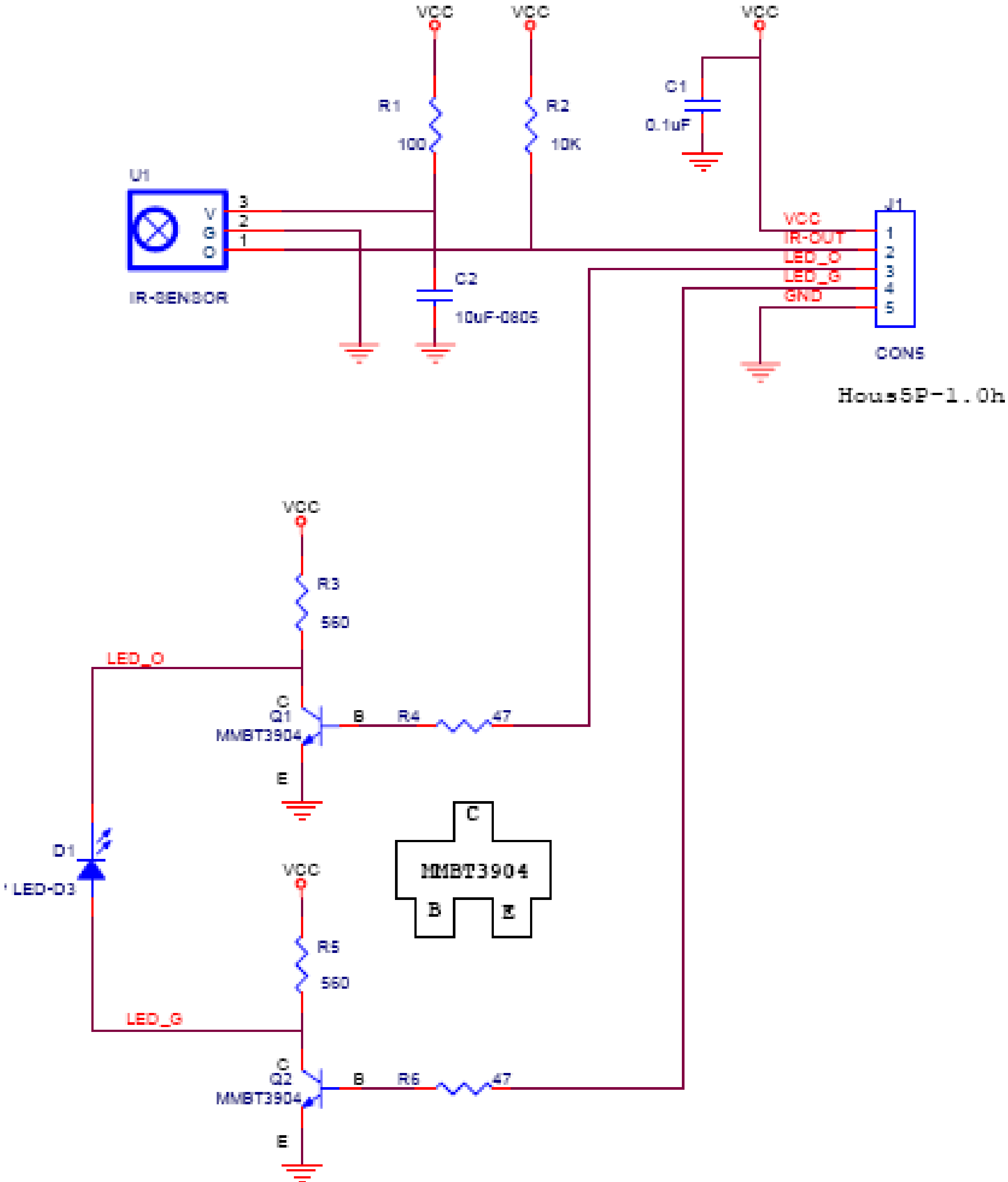

SPI INTERFACE (HDMI)
SPI INTERFACE (HDCP)
HDMI VIDEO INPUT
Modify 11/09
Add R370
For EDID Flash
HDMI EDID EEPROM
HDMI HDCP EEPROM
PULL HIGH HDMI_PLUGPWR


AV / SV VIDEO INPUT
AV / SV AUDIO INPUT
SIDE VIDEO/AUDIO IN
NEARLY MT5372
NEARLY MT5372
NEARLY MT5372
NEARLY AV CONNECTOR
NEARLY AV CONNECTOR
NEARLY AV CONNECTOR
FRONT VIDEO/AUDIO IN
NEARLY MT5372
NEARLY MT5372
NEARLY MT5372
NEARLY AV CONNECTOR
NEARLY AV CONNECTOR
NEARLY AV CONNECTOR

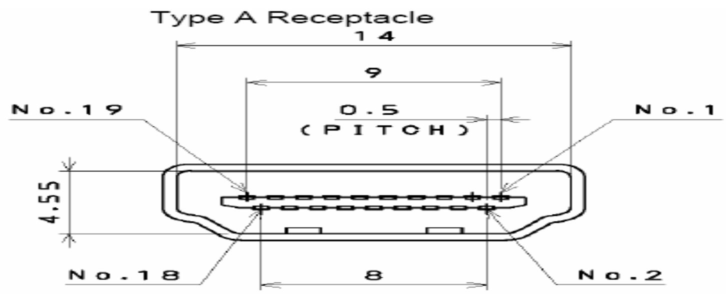
Tuner Input


RF AIR / CABLE INPUT SWITCH
PHILIPS COMBO-TUNER
SAMSUNG COMBO-TUNER
SIF LEVEL SHIFTER
ROUTE SYMMETRICALLY
ROUTE SYMMETRICALLY
NEARLY TUNER
SAMSUNG TUNER IIC FULL HIGHT
TU_VCC FOR TUNER POWER USE
AIR INPUT
CABLE INPUT
TO TUNER

IR Sensor/LED Board



HMDI connector is a type A receptacle for video/audio mode.



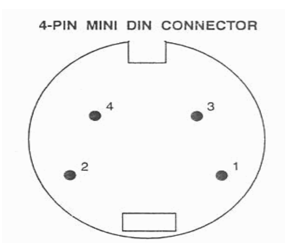
1. TMDS Data 2+	**9.** TMDS Data 0-	**17.** CEC/GND
2. TMDS Data 2 shield	**10.** Clock +	**18.** +5V Power
3. TMDS Data 2-	**11.** Clock shield	**19.** Hot Plug Detect
4. TMDS Data 1+	**12.** Clock -	
5. TMDS Data 1 shield	**13.** CEC	
6. TMDS Data 1-	**14.** NC	
7. TMDS Data 0+	**15.** DDC CLK	
8. TMDS Data 0 shield	**16.** DDC DATA	

D-Sub Connector IN. (This function also can provides to HDTV.)

D-Sub type Connector pin assignment		
1. Red Video	6. Red Ground	11. GND
2. Green Video	7. Green Ground	12. SDA For DDC1/2B
3. Blue Video	8. Blue Ground	13. H-sync.
4. GND	9. +5V from PC	14. V-sync.
5. Vdd from PC for DDC	10. Sync. GND	15. SCL For DDC1/2B

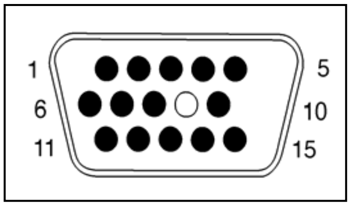
RCA jacks are all female type.

Mini DIN CNC 4 Pins (SCN570S3NS00000) for S-video, the pin assignment is described as below:



1: Ground
2: Ground
3: Y
4: C

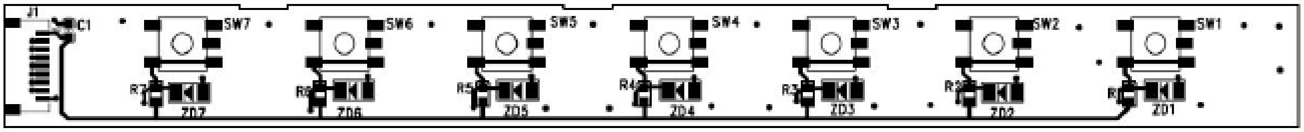
Signal Connector Pin Assignment



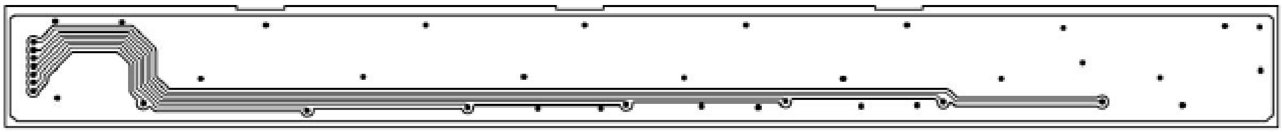
Pin	Assignment	Pin	Assignment	Pin	Assignment
1.	Red	6.	Red Ground	11.	Ground
2.	Green	7.	Green Ground	12.	SDA
3.	Blue	8.	Blue Ground	13.	Horizontal Sync.
4.	Ground	9.	Not Connected	14.	Vertical Sync.
5.	Self Test	10.	Sync. Ground	15.	SCL

11. PCB Layout Diagrams

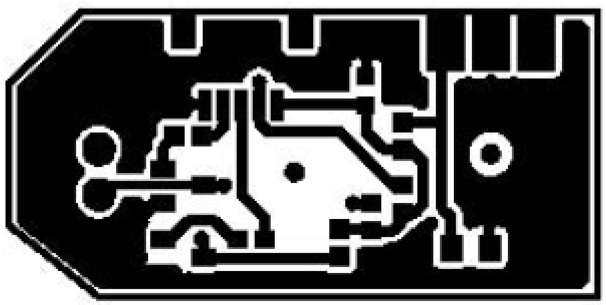
Keypad Board (Component Side Top)



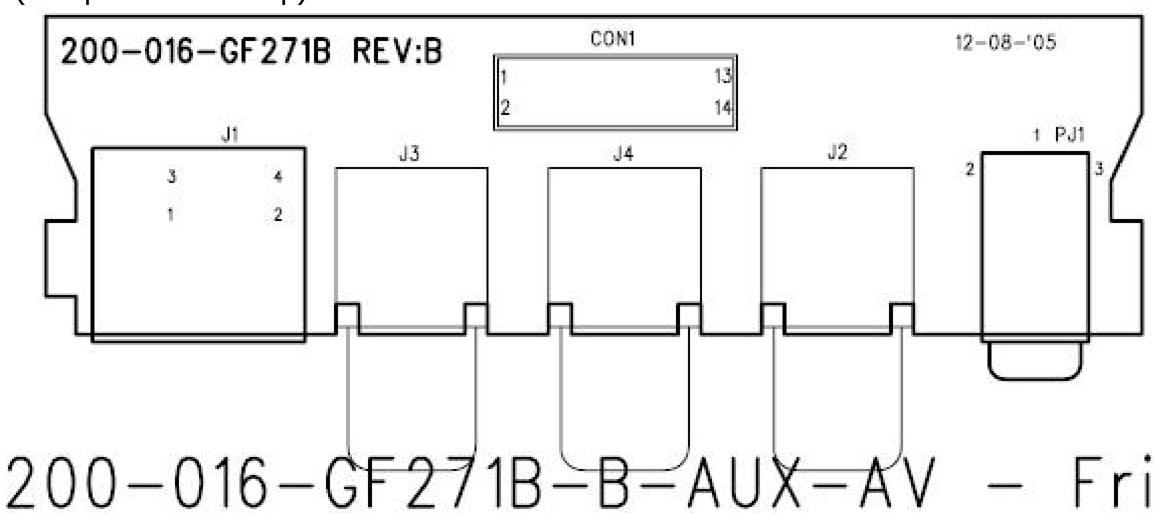
Keypad Board (Component Side Bottom)



IR/LED Board (Component Side Top)



AUX AV Board (Component Side Top)



D-SUB 37 Pin Board (Component Side Top)

